INDIAN HEALTH CARE

SUMMARY

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The Technology Assessment Board approves the release of this report. The views expressed in this report are not necessarily those of the Board, OTA Advisory Council, or individual members thereof.

Foreword

American Indians and Alaska Natives have a unique historical and legal relationship with the Federal Government. Through treaties and statutes, the Federal Government acts as a trustee for Indian tribes. In this "government-to-government" relationship, Federal programs for Indians are administered principally by the Bureau of Indian Affairs in the Department of the Interior, except for medical and health-related services, which are provided through the Indian Health Service, a component of the Public Health Service in the Department of Health and Human Services.

The health of Indian people still lags behind the health status of the general U.S. population, and there are substantial differences in health status and causes of illness among the nearly 300 Indian tribes and more than 200 Alaska Native villages in the United States. Continuing concerns over the health of Indian people led the House Energy and Commerce Committee and its Subcommittee on Health and the Environment to request that OTA examine the health status of Indians and the services and technologies that are provided to them through Federal Indian health programs. The request was also supported by the Senate Select Committee on Indian Affairs and by the Chairman and Vice-Chairman of OTA's Congressional Board, one of whom was also acting in his capacity as Chairman of the House Committee on Interior and Insular Affairs.

An advisory panel, chaired by Rashi Fein, Professor of the Economics of Medicine, Harvard Medical School, provided guidance and assistance during the assessment. Also, four public meetings were held (in Portland, Oregon; Phoenix, Arizona; Rapid City, South Dakota; and Tulsa, Oklahoma) to provide tribes and their representatives the opportunity to comment on assessment activities and to confirm the information that OTA had collected. Site visits to nearby reservations and health facilities were also conducted as part of these activities. A large number of individuals from Indian tribes and organizations, the Federal Government, academia, the private sector, and the public provided information and reviewed drafts of the report.

OTA gratefully acknowledges the contribution of each of these individuals. As with all OTA reports, the content of the assessment is the sole responsibility of OTA and does not necessarily constitute the consensus or endorsement of the advisory panel or the Technology Assessment Board. Key staff responsible for the assessment were Lawrence Miike, Ellen M. Smith, Denise Dougherty, Ramona M. Montoya, and Brad Larson.

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NOTE: OTA appreciates and is grateful for the valuable assistance and thoughtful critiques provided by the advisory panel members. The panel does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility for the report and the accuracy of its contents.

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Indian Health Care

INTRODUCTION

This report is an assessment of health care for American Indians and Alaska Natives who are eligible for medical and health-related services from the Federal Government. The Federal agency that is responsible for providing these services is the Indian Health Service (IHS), a component of the Public Health Service (PHS) in the Department of Health and Human Services (DHHS).

This report was prepared at the request of the House Committee on Energy and Commerce and its Subcommittee on Health and the Environment, which have legislative and oversight jurisdiction over all Federal health programs funded through general revenues. The request was supported by the Senate Select Committee on Indian Affairs and by the Chairman of the House Committee on Interior and Insular Affairs, the committee with primary jurisdiction over Indian affairs in the House of Representatives.

The principal issues identified by the requesting committee were the health status of American Indians and Alaska Natives (hereinafter collectively called "Indians"), the services provided to Indians in view of their health needs, the health delivery systems in which these services are provided, and the growing problem of paying for high-cost care that cannot be provided in IHS facilities and that must be purchased from other providers of medical care.

The basic population that is eligible for services from IHS consists of "persons of Indian descent belonging to the Indian community served by the local facilities and program." An individual is eligible for IHS care "if he is regarded as an Indian by the community in which he lives as evidenced by such factors as tribal membership, enrollment, residence on tax-exempt land, ownership of restricted property, active participation in tribal affairs, or other relevant factors in keeping with general Bureau of Indian Affairs practice in the jurisdiction" (42 CFR 36.12). Eligible Indians are not subject to an economic means test and may receive IHS services regardless of their ability to pay.

IHS estimates its service population by enumerating American Indians, Eskimos, and Aleuts living within the geographic boundaries of its service areas based on the most recent census, and adjusting those estimates for subsequent years by applying birth and death statistics. Generally, IHS service areas consist of counties that have the reservation of a federally recognized tribe within or contiguous to their borders (exceptions to this general rule include designating the States of Alaska, Nevada, and Oklahoma as IHS service areas). (There are tribes that are State-recognized only, and other tribes that are not recognized by either Federal or State governments.)

Thus, even though eligibility is not limited to Indians who are members of federally recognized tribes, in practice, Federal Indian health services are directed at Indians because of their membership in (or affiliation with) tribes that are recognized by the Federal Government, and not because of the racial background of individual recipients.

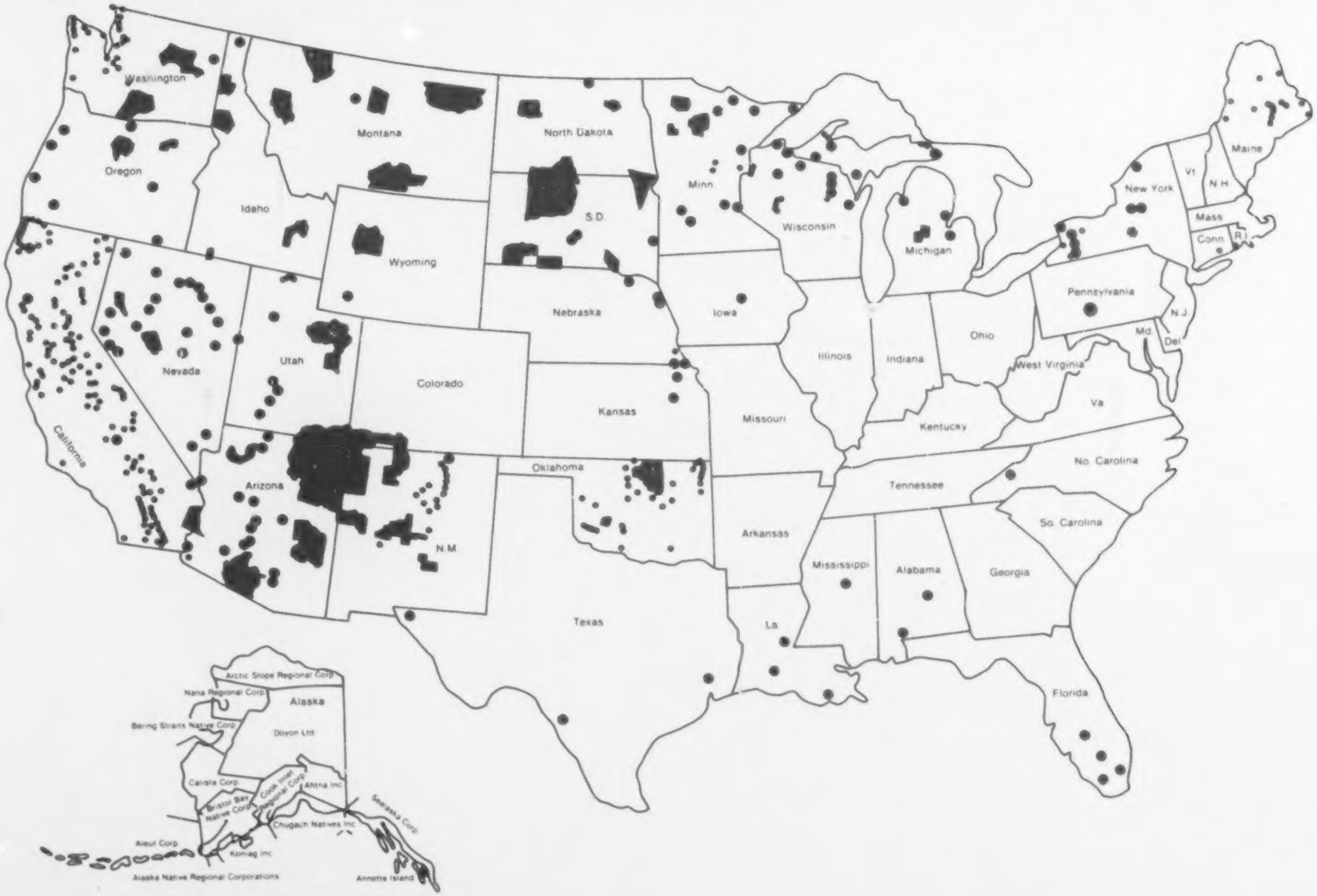
THE INDIAN POPULATION

Information on the Indian population comes from three sources, the U.S. Bureau of the Census, the Bureau of Indian Affairs (BIA), and IHS. In 1980, the census allowed individuals to choose the racial group with which they most identified, instead of relying on the observations of the census takers as in the past. The census also distinguished between Indians living inside "identified areas" and Indians living elsewhere. "Identified areas" are defined as reservations, tribal trust lands, Alaska Native villages, and historic areas of Oklahoma that consist of former reservations having legally established boundaries between 1900 and 1907, excluding urban areas. BIA uses whatever information may be available for a reservation to estimate its service population and labor force participation, primarily for the purpose of providing information on employment and earnings on Indian reservations. IHS bases its service population estimates on data from the U.S. Census.

In 1980, the census identified 278 reservations and 209 Alaska Native villages (figure 1), and counted 1.4 million Indians, Eskimos, and Aleuts living throughout the United States both on and off reservations. The degree of Indian blood in these self-identified Indians is not known. Many tribes have a tribal-specific blood quantum requirement (e.g., one-quarter) for membership; some tribes have a simple descendancy requirement. The last relatively comprehensive survey on "blood quantum" was reported by BIA for 1950, when approximately 60.2 percent of all reservation Indians were full-blood, 26.7 percent were half-blood, 9.5 percent were one-quarter, and 3.6 percent had less than one-quarter Indian blood quantum. IHS has no blood quantum requirement for its services, and any Indian who is considered an Indian by the Indian community served by the local IHS facility is eligible for IHS services.

In 1980, 22 percent of the Indian population lived in central cities, 32 percent lived in urban areas outside central cities, and the remainder lived in nonmetropolitan areas. Thirty-seven percent actually lived inside identified Indian areas as defined by the census. The number of Indians living on reservations as enumerated in the 1980 census ranged from 104,978 on the Navajo reservation to 0 on 21 reservations (these most likely were small parcels of land, with tribal members living on nearby lands). Ten reservations accounted for 49 percent of all reservation residents. Four States had Indian populations in excess of 100,000: California, Oklahoma, Arizona, and New Mexico. The 10 Standard Metropolitan Statistical Areas (SMSAs) with the largest numbers of Indians were, in descending order, Los Angeles-Long Beach, Tulsa, Oklahoma City, Phoenix, Albuquerque, San Francisco-Oakland, Riverside-San Bernardino-Ontario, Seattle-Everett, Minneapolis-St. Paul, and Tucson.

Figure 1.—Federally Recognized Indian Reservations and Alaska Native Regional Corporations, 1985



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Arizona
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North Dakota
S.D.
Nebraska
Kansas
Oklahoma
Texas
Minn
Iowa
Missouri
Arkansas
La.
Wisconsin
Illinois
Michigan
Indiana
Ohio
Kentucky
Tennessee
Mississippi
Alabama
Georgia
Florida
So. Carolina
No. Carolina
Va.
West Virginia
Pennsylvania
New York
Md
Del
N.J.
Conn
R.I.
Mass
Vt
N.H.
Maine
Alaska
Arctic Slope Regional Corp
Nana Regional Corp
Bering Straits Native Corp
Doyon Ltd
Calista Corp
Cook Inlet Regional Corp
Ahtna Inc
Bristol Bay Native Corp
Chugach Natives Inc
Sealaska Corp
Aleut Corp
Koniag Inc
Alaska Native Regional Corporations
Annette Island

SOURCE: Native American Science Education Association, 1986.

The median age for Indians in the 1980 Census was 22.9 years, compared with 30.0 years of age for the general U.S. population. In 1979, the median income for families of all races was $19,917, compared with median incomes of $13,678 for American Indian, $13,829 for Eskimo, and $20,313 for Aleut families. In 1980, 27.5 percent of American Indians had incomes that were below the poverty level, compared with 12.4 percent of the total U.S. population. Only Black persons had a higher percentage, with 29.9 percent having incomes below the poverty level.

ELIGIBILITY FOR FEDERAL INDIAN HEALTH CARE

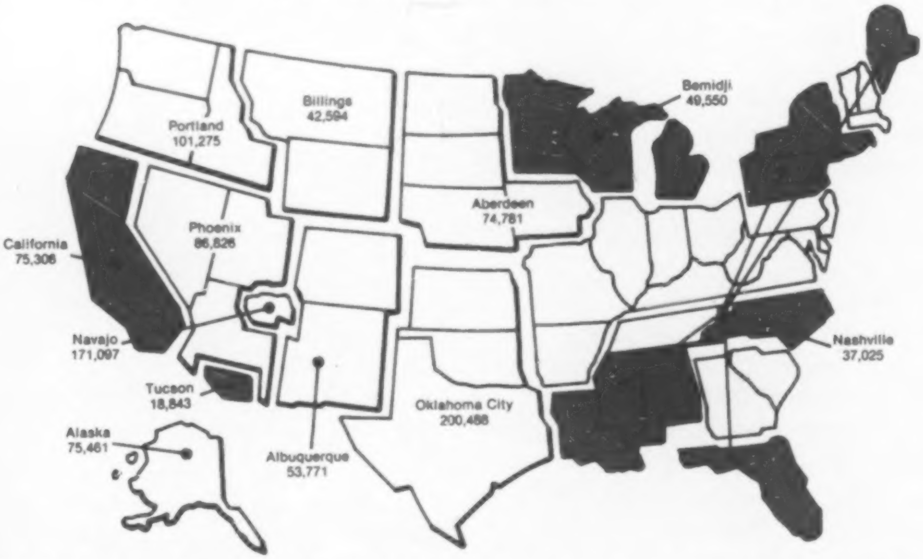
Although IHS services are not limited to reservation-based Indians, IHS clinical facilities have generally been placed on or near reservations, and most IHS funds are appropriated for eligible Indians who live on or near a reservation. One of the reasons that eligibility is not explicitly limited to members of federally recognized tribes is the variation across tribes in requirements for tribal membership. Tribal rolls may be reopened only infrequently, which would make it difficult for Indians not on the rolls to prove their eligibility for IHS services if tribal membership were the sole criterion. Another reason lies in the history of reversals in Federal Indian policies, their effects on individual tribes and Indians, and the inequities that would result if only members of tribes that are presently federally recognized were eligible for IHS services. Congress has therefore chosen not to restrict services to members of federally recognized tribes.

In 1980, approximately 850,000 of the 1.4 million self-identified Indians in the census count resided in IHS areas. Figure 2 presents the estimated 1986 IHS service population of 987,017 in the 32 reservation States, grouped according to the 12 area offices of IHS. "Reservation States" are States containing the reservations of federally recognized tribes and in which IHS services are provided.

Many tribes maintain rolls of their members and dispute the IHS population estimates, which are derived from census data. Besides the possibility of undercounting Indians in the census, many tribes count individuals as members without regard to their place of residence. Tribal rolls may list full-fledged members and others who may be enrolled but do not have the full privileges of members, such as voting rights or the right to share in tribal benefits.

In order to augment the health services available from IHS facilities, IHS purchases care from non-IHS providers through a contract care program. Currently, approximately 26 percent of the IHS clinical services budget is spent on services from non-IHS providers. Eligibility for contract care is more restrictive than for IHS direct services. To be eligible for contract care, in addition to meeting the criteria for eligibility for IHS direct services, an individual must: 1) reside on a reservation located within a contract health service delivery area (CHSDA) as designated by IHS; or 2) reside within a CHSDA and either be a member of the tribe or tribes located on that reservation or of the tribe or tribes for which the reservation was estab-

Figure 2.—Indian Health Service Population by Area
Total Service Population, Fiscal Year 1986 Estimate: 987,017



SOURCE: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Indian Health Service, Population Statistics Staff.

lished, or maintain close economic and social ties with that tribe or tribes; or 3) be an eligible student, transient, or Indian foster child (42 CFR 36.23).

In most areas, the CHSDA consists of the county that includes all or part of a reservation, plus any county or counties that have a common boundary with the reservation. Although Indians eligible for IHS direct services can live anywhere, only those Indians actually living in a designated CHSDA are eligible for non-IHS care through IHS's contract care program.

IHS administers a small contract program for urban Indian health organizations, which generally use IHS funds as core funds to attract and apply for funds from other public and private sources directed at minority and economically disadvantaged groups. Because of the use of these other sources, urban Indian health programs usually serve others besides their Indian clientele. Most urban programs provide a modest amount of direct clinical services, with their main emphasis being to help clients gain access to other available health and social services. The statutory definition of "Indians" to whom these urban programs are directed is much more liberal than the definition for eligibility for IHS direct services: "urban Indians," for example, also include members of a tribe, band, or other organized group terminated since 1940 and those recognized now and in the future by the State in which they reside (42 CFR 36.302[h,u]).

THE FEDERAL-INDIAN RELATIONSHIP

The fundamental relationship between Indian tribes and the U.S. Government was set forth in the 1830s by the U.S. Supreme Court under Chief

Justice John Marshall. Indian tribes were described as "domestic dependent nations," and their relationship with the United States characterized as one that "resembles that of a ward to his guardian." This view of the relationship originated not from any one treaty or statute, but from the Supreme Court's analysis of the relationship of the tribes with the United States. It relied on a meshing of treaties, statutes, constitutional provisions, and international law and theory. The political responsibility for dealing with Indian tribes was constitutionally assigned to the Federal Government, and the States were held to have no role in Indian affairs. **The Federal Government's responsibility is commonly known as its "trust responsibility" for Indians.**

The newly formed United States originally based much of its relationship with Indians tribes on treaties, which are the exclusive responsibility of the U.S. Senate. Since 1871, however, the United States has dealt with tribes by statute rather than by treaty, because the U.S. House of Representatives also wanted to be involved in negotiating agreements with Indian tribes.

In the 1880s, a number of statutes were passed to "civilize" Indians (the classic is the Dawes Act [24 Stats. 388 (1887)]). In this "allotment period," each adult Indian on a reservation was assigned a specific amount of land (usually 160 acres), and some relatively small amount of land was set aside for tribal purposes (schools, cemeteries, and the like). The remaining Indian lands were opened to non-Indian settlement. Indian lands were to be held in trust, as were the proceeds from the sale of "excess" lands, for a limited number of years. The theory was that during this trust period, individual Indians would become farmers and leave their Indian ways. They were to be emancipated from their tribes and become eligible for U.S. citizenship (Indians subsequently became U.S. citizens through the Citizenship Act of 1924 [8 U.S.C. 1401(b)]). It was during the allotment period that BIA became the dominant institutional force on Indian reservations.

The Indian Reorganization Act of 1934 (25 U.S.C. 461, *et seq.*) ended allotment, extended the trust indefinitely, allowed tribes to form federally recognized tribal governments, and established economic development programs for tribes. Following World War II, however, Federal Indian policy was again reversed. During this period, thousands of reservation Indians were forced to resettle in urban centers where they were to be trained and employed; major functions, responsibilities and jurisdiction over Indians were transferred from the Federal Government to the States (18 U.S.C. 1162; 28 U.S.C. 1360); and the Federal relationship with specific tribes was terminated, including ending services and distributing tribal assets to individual tribal members.

This "termination period" was replaced by the current phase in Federal-Indian relationships, commonly known as Indian self-determination, following the Indian Self-Determination and Education and Assistance Act of 1975 (Public Law 93-638; 25 U.S.C. 450, *et seq.*). The 1975 law provided for the transfer to tribes of functions that had been previously performed for them by the Federal Government, including the provision of

Photo credit: National Archives

Indian Health Service TB Sanitarium ward, circa 1900-1925.

health services (once assumed, tribes have the option of returning these responsibilities to the Federal Government). Furthermore, based on the Indian Reorganization Act of 1934 and subsequent judicial determinations, there is a preference for Indians for employment in IHS and BIA (42 CFR 36.41-36.43; 25 CFR 5.1-5.3).

Services, including social and health services, were provided to Indian tribes from the very beginning of the United States as an independent nation. Congress routinely appropriated funds for these purposes, though there was no specific statutory authority to do so until 1921. In that year, the Snyder Act (25 U.S.C. 13) was passed to avoid a procedural objection to continuing to fund Indian service programs without an authorizing statute. **The Snyder Act remains the basis for most of the Indian health services provided by the Federal Government. The pertinent language in regard to health care was simply "such moneys as Congress may from time to time appropriate, for benefit, care, and assistance of the Indians throughout the United States . . . for the relief of distress and conservation of health . . . and for the employment of . . . physicians" (25 U.S.C. 13).**

While Congress has consistently provided funds for Indian service programs, the courts so far have ruled that these benefits are voluntarily provided by Congress and not mandated under the Federal Government's trust responsibility for Indian tribes. Appropriated funds are "public moneys" and not treaty or tribal funds "belonging really to the Indians." The trust responsibility for Indians does not in itself constitute a legal entitlement to Federal benefits. In the absence of a treaty, statute, executive order, or agreement that provides for such benefits, the trust responsibility cannot be the basis for a claim against the Federal Government.

However, courts have relied on the trust responsibility to liberally construe treaties and statutes in favor of Indians. Moreover, the U.S. Supreme Court has ruled that special Indian programs are not racial in nature but based on a unique political relationship between Indian tribes and the Federal Government.

The Federal Government's obligation to deal fairly with Indian tribes when Snyder Act benefits are involved was addressed in 1974 in *Morton* v. *Ruiz*, which determined that reasonable classifications and eligibility requirements could be created in order to allocate limited funds. In *Morton* v. *Ruiz*, the Supreme Court found that BIA had not complied with its own internal procedures, nor had it published its general assistance eligibility criteria in keeping with the rulemaking requirements of the Administrative Procedure Act (5 U.S.C. 706). BIA had recognized the necessity of formally publishing its substantive policies and had placed itself under the act's procedures.

The Administrative Procedure Act also contains the standard used by the courts to review Federal agency decisions and policies. Under the act, a Federal agency's action is presumed to be valid and must be confirmed if challenged in court as long as it is not "arbitrary, capricious, or otherwise not in accordance with law" (5 U.S.C. 706 [2][A]). An action is valid if all the relevant factors were considered in its development and if any discernible rational basis existed for the agency's action.

Courts will not address a larger issue if a more circumscribed ruling is possible, however, so the constitutional implications of *Morton* v. *Ruiz* have never been fully litigated. Because the Supreme Court found that BIA had placed itself under the Administrative Procedure Act but had not followed the act's procedures, the court did not address the issue of whether a stricter standard should be applied.

Another standard for judicial review of agency rulemaking is applicable to constitutional claims under the equal protection clause of the 14th amendment. There are two standards that are based on the equal protection clause. One is a "rational basis" test that is similar to, but not a substitute for, the standard under the Administrative Procedure Act. A second, stricter constitutional test is applied when suspect classifications are involved, for example, ancestry; race; alienage; or fundamental constitutional rights, such as right of interstate travel, right to vote, or right of privacy with respect to abortion.

In the 1980 decision of *Rincon Band of Mission Indians* v. *Califano* , a band of California Indians sued for their fair share of IHS resources, claiming that their constitutional rights to equal protection had been violated and that the Snyder Act was part of the Federal trust responsibility. The district court found that the plaintiffs' equal protection rights to due process under the fifth amendment had been violated. On appeal, the Ninth Circuit did not find it necessary to address the constitutional argument, because it found that IHS had breached its statutory responsibilities under the Snyder Act. The Ninth Circuit also did not address the trust question because it was not necessary to do so in reaching its decision. Thus, IHS must at least meet the requirements of the Administrative Procedure Act in administering health services to Indians. Since the court determined that IHS had not met the act's standard, whether a constitutional standard is required has never been fully litigated.

In addition to the Federal Government's responsibilities for and benefits conferred to Indian tribes, there are a number of Federal programs directed at Indians as individuals and not necessarily as tribal members. Such Federal activities may exist to augment tribally oriented programs, or Indians may be included within programs that assist economically disadvantaged groups or have other social policy objectives. Examples of Federal activities to augment tribally oriented programs include the health professions scholarship program for Indian students (42 CFR 36.320-36.334) and grants for urban Indian health programs (42 CFR 36.350-36.353). An example of a program that is not directed specifically at Indians but that recognizes their needs is the National Health Service Corps (NHSC). NHSC scholarship recipients must pay back their scholarships year-for-year by practicing in "health manpower shortage areas." In this program, the Indian population eligible for medical care from IHS is automatically designated as an underserved population (42 CFR Part 5, app. A).

Indians are U.S. citizens and are eligible for medical services provided to other U.S. citizens, including both Federal and State services. Through regulations, IHS services are "residual" to those of other providers—i.e., other sources of care (e.g., Medicaid, Medicare, private insurance) for which the Indian patient is eligible must be exhausted before IHS will pay for medical care. For direct IHS services, the residual payer role is discretionary (42 CFR 36.12[c]), and as a matter of policy, IHS generally will provide services to a patient in IHS facilities regardless of other resources, but will seek reimbursement from those other sources for the care provided. For contract care obtained from non-IHS providers, IHS's residual payer role is mandatory (42 CFR 36.23[f]), and IHS will not authorize contract care payments until other resources have been exhausted or a determination has been made that the patient is not eligible for alternative sources of care.

One issue that has arisen in connection with IHS's residual payer role is who is the primary, and who is the residual payer, when State or local governments also have a residual payer rule. This situation arose in litigation between IHS and Roosevelt County, Montana. The county had argued that it was not discriminating against Indians, but merely applying its alternate resource policy across the board to all eligible citizens who have double coverage, thereby meeting the "rational basis" test for judicial review.

Amendments to the Indian Health Care Improvement Act in 1984 contained a provision, commonly known as the "Montana amendment," that was designed to relieve several Montana counties from providing and paying for medical services to indigent Indians and would have made IHS financially responsible for medical care to indigent Indians in Montana. This

IHS responsibility was to exist only where State or local indigent health services were funded from taxes from real property and the indigent Indian resided on Indian property exempt from such taxation.

President Reagan vetoed the amendments because of his objection to the "Montana amendment" (and to a provision affecting the location of IHS in DHHS). There are two principal arguments that might prevail against the position that State or local governments, instead of IHS, can be the residual payer. First, Indians, as State citizens, are constitutionally entitled to State and local health benefits on the same basis as other citizens under the equal protection clause of the 14th amendment. The second argument is that the State or county cannot presume that Indians have a right or entitlement to IHS contract health services, and so cannot deny assistance on the grounds of double coverage. In fact, the Federal regulation on contract care expressly denies that such a right exists. In such a conflict, the supremacy clause of the U.S. Constitution should resolve the issue in favor of the IHS regulation.

In January 1986, the U.S. District Court for the District of Montana, Great Falls Division, ruled that the Federal Government, and not Roosevelt County, was primarily responsible for the care of the Indian plaintiff. Though the court did not find the trust doctrine, the Snyder Act, or the Indian Health Care Improvement Act as individually entitling Indians to Federal health care, the court found that the two statutes, read in conjunction with the trust doctrine, placed the burden on IHS to assure reasonable health care for eligible members. The court, however, did not address the equal protection and supremacy clause arguments outlined above, and the decision is being appealed.

A final observation is that radical changes in Federal policy toward Indians over the years have introduced a tremendous amount of complexity into the Federal-Indian relationship, of which only a fleeting glimpse can be presented in this assessment of Indian health care. Tribes may have continued to exist as cultural, political, and social entities, but they may have been officially "terminated" from recognition as tribes by the Federal Government and therefore be ineligible for services that the Government provides to recognized tribes and their members. Other tribes may be federally recognized, but their reservation lands may be only a miniscule portion of what they once had, so that most tribal members might not be living on their official reservation but on land adjacent to or in the vicinity of the reservation.

Even tribes with large reservations have been affected by changing Federal policies. Most reservations contain some land that is owned by non-Indians, a legacy of the allotment period when individual Indians were given title to a portion of the reservation and sold it to non-Indians. On some reservations, "checkerboarding," the term given to the existence of a checkerboard pattern of land ownership between Indians and non-Indians within reservation boundaries, is extensive. In addition, many reservations are in isolated rural areas, which have few economic opportunities for tribal members who wish to remain on or close to their reservation. Finally, even tribes with substantial natural resources or other forms of capital assets often find it difficult to commercialize those resources in ways that provide employment for a significant number of their members. Thus, government programs are an important source of employment, and IHS and BIA are major employers on many of the larger Indian reservations.

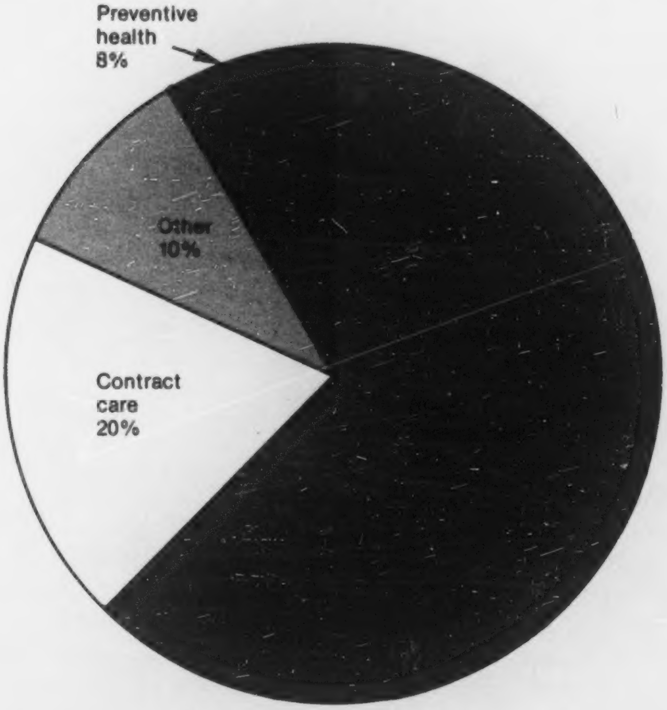
DELIVERY OF HEALTH SERVICES TO ELIGIBLE INDIANS

Federal responsibility for medical and health-related services was transferred in 1955 from BIA in the Department of the Interior to PHS in what was then the Department of Health, Education, and Welfare (42 U.S.C. 2004a). IHS is now located in the Health Resources and Services Administration (HRSA), one of five administrative units that comprise the Public Health Service in the Department of Health and Human Services.

Services that are available through IHS include outpatient and inpatient medical care, dental care, public health nursing and preventive care, and health examinations of special groups such as school children (42 CFR 36.11). Within these broad categories are special initiatives in such areas as alcoholism, diabetes, and mental health. However, the actual availability of particular services depends on the area served. IHS regulations are very explicit on this point: "The Service does not provide the same health services in each area served. The services provided to any particular Indian community will depend upon the facilities and services available from sources other than the Service and the financial and personnel resources made available to the Service" (42 CFR 36.11[c]).

As previously described, direct care services are provided through IHS at its clinics and hospitals, including IHS and some tribally constructed facilities that are administered by tribes under the Indian Self-Determination and Education and Assistance Act of 1975 (Public Law 93-638; 25 U.S.C. 450, *et seq.*); and through contract services purchased from non-IHS medical care providers. Tribal administration most often involves primary care clinics and special programs such as alcoholism counseling and the community health representative program. Contracts with non-Indian providers usually involve specialty services and/or inpatient care not available through IHS's hospitals and clinics. In fiscal year 1985, out of a total appropriation of $807 million (excluding the facilities construction program), the clinical services budget was $637 million (figure 3). The remainder was spent on preventive health programs and other activities such as urban projects, manpower training, and administrative costs. Of the clinical services budget of $637 million, $164 million (26 percent) was spent on contract care, while $473 million (74 percent) was spent on direct care. Approximately $141 million (30 percent) of the direct services budget was administered by tribal programs under self-determination contracts. Thus, of the $637 million appropriated for clinical services in fiscal year 1985, direct IHS operations accounted for 52 percent, tribally administered programs accounted for 22 percent, and 26 percent was spent on contract care.

Figure 3.—IHS Allocations by Major Budget Category, Fiscal Year 1985



Total IHS Allocations FY 1985: $807 million

■ *Direct clinical care:* $498 million—includes budget lines for hospitals and clinics; dental, mental health, alcoholism programs; maintenance and repairs.

□ *Contract care:* $164 million—services purchased from private providers.

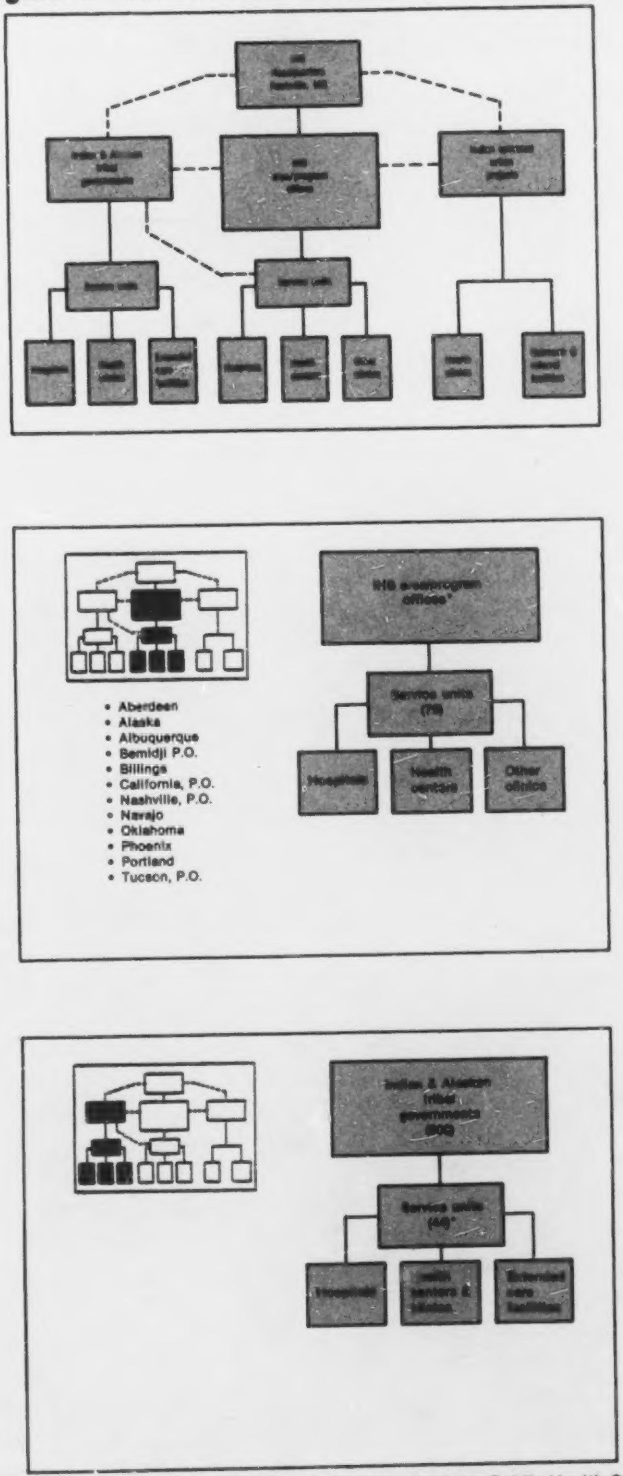
■ *Preventive health services:* $66 million—includes sanitation, public health nursing, health education, community health representatives, immunizations.

▨ *Other:* $79 million—includes urban Indian health projects, health manpower, tribal management, direct operations.

SOURCE: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Indian Health Service, Office of Administration and Management; fiscal year 1985 allocation including pay act funds, as of Sept. 26, 1985 ($1 million of appropriation held in reserve).

The organizational structure of IHS is depicted in figure 4. IHS facilities consist of 51 hospitals (6 are tribally administered), 124 health centers (over 50 tribally administered), and nearly 300 health stations (over 200 tribally administered). A health center is a relatively comprehensive outpatient facility that is open at least 40 hours per week, while a health station, which may be a mobile unit, is open fewer than 40 hours per week and offers

Figure 4.—Indian Health Service DHHS/PHS/HRSA


IHS area/program offices*
Service units (78)
Hospitals
Health centers
Other clinics
• Aberdeen
• Alaska
• Albuquerque
• Bemidji P.O.
• Billings
• California, P.O.
• Nashville, P.O.
• Navajo
• Oklahoma
• Phoenix
• Portland
• Tucson, P.O.
Indian & Alaskan tribal governments (500)
Service units (44)*
Hospitals
Health centers & clinics
Extended care facilities

SOURCE: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Indian Health Service, *IHS Chart Series Book*, April 1985 (published as charts 1.1-1.3, page 7).

less complete ambulatory services. IHS also maintains health locations, which generally are outpatient delivery sites (but not IHS facilities) that are staffed periodically by traveling IHS health personnel.

In 1984, IHS also provided full or partial funding for 37 urban Indian programs in 20 States. The urban programs' emphasis is on increasing access to existing services funded by other public and private sources for Indians living in urban areas. Only 51 percent of the urban programs' total 1984 budget of $17.5 million was provided by IHS. Since some funding sources require these programs to serve certain populations that include non-Indians, the only requirement that IHS imposes on the urban programs is that the number of Indians served by each program be proportional to the amount of funds provided by IHS.

IHS hospitals are smaller than the average U.S. short-stay community hospital, with two-thirds of IHS hospitals having 50 beds or less, compared with about 20 percent of all community hospitals in that size group. Thirteen of 45 IHS-operated hospitals have 50 to 99 beds, and only 4 exceed 100 beds: Anchorage, Phoenix, Tuba City, and Gallup. Seven IHS hospitals have only 14 or 15 beds. The average IHS hospital is over 35 years old. Of the hospitals operated by IHS, 18 were built before 1940, 3 were built between 1940 and 1954, and 26 have been built since the transfer of Indian health services from BIA to IHS.

In general, an IHS hospital is likely to provide a relatively wide range of health-related and social support services, but few high-technology services. For example, only 13 of the 51 IHS and tribally administered hospitals offer staffed surgical services (5 of these are in Oklahoma), and an additional 7 hospitals offer modified or limited surgery (using part-time contract surgeons).

The fact that IHS hospitals are relatively limited in the services they can provide is one reason that the contract care program has been under increasing budgetary pressures. Furthermore, IHS does not maintain hospitals in all its service areas. In areas without IHS hospitals, inpatient services of all types, as well as specialty services, must be purchased from the private sector through the contract care program. IHS maintains referral hospitals in Phoenix, Gallup, and Anchorage for Indians in those areas. These referral hospitals in turn have their own contract care budgets for further specialized services that they cannot provide. California and the Pacific Northwest, on the other hand, have no IHS or tribal hospitals (there is actually one hospital that is physically located in California to serve the Quechan tribe, which is administered from the Yuma service unit out of the Phoenix area office) and must purchase all inpatient care with their contract care allocations. Except for the Mississippi Choctaw and North Carolina Cherokees, eastern Indians also are provided inpatient services almost entirely through contract care.

As described earlier, IHS is by regulation a residual provider. It will attempt to collect from other sources of payment for care provided in IHS facilities, and it will determine what other sources of financing are available before authorizing payment for contract care (in addition to the previously described eligibility criteria limiting contract care to Indians living

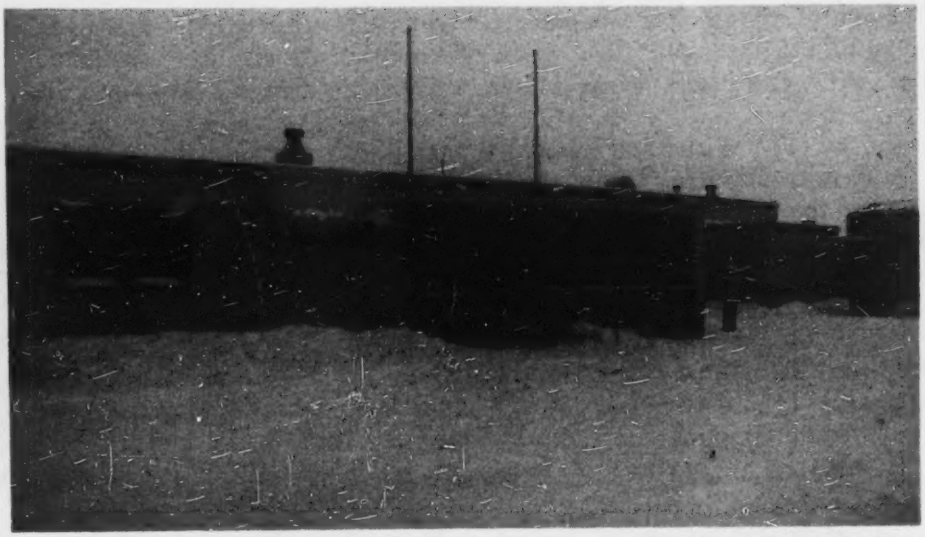


Photo credit: Indian Health Service

The 31-bed IHS hospital in Kotzebue, Alaska, constructed in 1961.

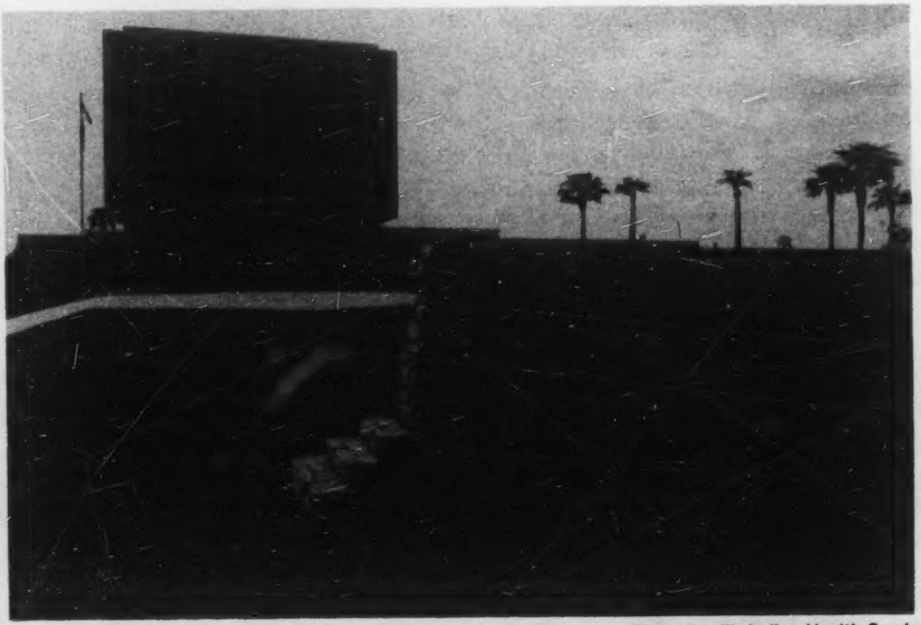


Photo credit: Indian Health Service

The 163-bed Phoenix Indian Medical Center, one of three referral hospitals in IHS.

on or near reservations). In practice, other sources of payment are largely derived from Medicaid and Medicare, rather than from private health insurance, because of the low income of many Indian people (especially those who are reservation-based) and their lack of employment-related health insurance benefits.

Even when patients have private insurance, companies routinely refuse to pay for services provided in an IHS facility, because there is no obligation on the part of the insured Indian to pay. Through congressional amendments to the Social Security Act, IHS facilities are eligible for reimbursements from Medicare and Medicaid, with Medicaid payments to be made totally out of Federal funds, and with the revenues to be used to restore or keep the facilities and their services in compliance with the conditions and requirements of the Medicare and Medicaid programs. Indians may experience difficulties in maintaining their eligibility for Medicaid, however, if they are in the "medically indigent" category of medical beneficiaries. Unlike "categorically needy" beneficiaries already enrolled in public assistance programs who automatically qualify for Medicaid (e.g., Supplemental Security Income), the "medically indigent" must apply for and continue to maintain their eligibility through county Medicaid offices.

For those services that IHS (including tribally operated programs) does purchase under contract, there are no uniform criteria for payment levels among IHS area offices. Physicians and other health care providers (e.g., optometrists) are usually paid on a fee-for-service basis; hospitals charge their prevailing rates and often are paid 100 percent of the amount billed. Individual service units within area offices may be able to negotiate lower payment rates, but this is the exception and depends on such special factors as long-standing relationships between the IHS service unit and outside providers, and on the availability of a range of outside providers.

IHS has experimented only to a limited extent with other methods of services delivery. In southern Arizona, the Pascua-Yaqui tribe's outpatient and hospital services are provided through a prepaid arrangement with a health maintenance organization (HMO), financed through specially appropriated congressional funds. A similar demonstration is underway for the Suquamish tribe in Washington State with Blue Cross/Blue Shield, but the demonstration is being conducted on a fee-for-service basis initially to develop information on costs. In Oklahoma, the tribes served by the Pawnee service unit have been provided with a "benefits package" in lieu of a replacement hospital. Under this arrangement, general outpatient care is still provided through IHS clinics, but all other care is purchased from local providers at prevailing rates. The same limits (use of other resources first) are imposed on the Pawnee benefits package as are applied to IHS's contract care program. The HMO option is not available in the Pawnee service unit, because no HMOs exist there (or in many other IHS service areas). These examples illustrate the extent to which available alternate resources, and options in methods of paying for them, vary across the United States. As described earlier, similar variations in the availability of direct IHS services exist across IHS areas.

FEDERAL EXPENDITURES FOR INDIAN HEALTH CARE

Federal expenditures for Indian health care are of two types: specific appropriations for Indian health services, and Federal programs targeted at specific groups in the overall U.S. population for which individual Indians

may qualify. Adjusting for inflation, IHS allocations doubled between 1972 and 1985. However, IHS's estimated service population also doubled during this period, so that allocations per estimated IHS beneficiary have remained essentially the same when adjusted for inflation.

The principal non-Indian health programs are Medicaid and Medicare. Other Federal medical service programs that serve some Indians include community health centers and the Veterans Administration's (VA's) medical care system, as well as medically related social programs such as the Women, Infants, and Children program. There is also the National Health Service Corps (NHSC) program, which currently provides a large proportion of the physicians practicing in IHS through the payback requirement for NHSC scholarships (those physicians' salaries are paid out of IHS funds).

Little information is systematically available on Federal, State, and private expenditures on Indians. The best information is on Medicaid and Medicare, which are probably the largest non-Indian sources of expenditures, including State and private health insurance sources. However, the information on Medicaid and Medicare is limited to reimbursement for services provided in IHS facilities. In the contract care program, the Indian beneficiary must first exhaust other sources of payment before the contract care program will authorize care, but IHS does not keep track of the total costs of the care provided to Indian beneficiaries by non-IHS providers and only accounts for IHS costs for contract care patients.

In fiscal year 1984, IHS was reimbursed $12.7 million from Medicare and $14.1 million from Medicaid for services provided to eligible Indians in IHS facilities. The Medicaid reimbursements are somewhat surprising in view of the impression OTA received during the course of this assessment that many more Indians should be eligible for Medicaid than for Medicare. One explanation may be, as IHS officials have reported, that collections from Medicare for services provided by IHS to Indians who also are Medicare beneficiaries proceed relatively smoothly. IHS has been reimbursed under Medicare's prospective hospital payment system since October 1983. Nor are contract care referrals a problem as long as the private provider is aware of the patient's Medicare eligibility and bills Medicare on behalf of that patient. **Collections from State Medicaid programs have been more difficult for both the IHS direct and contract care programs, primarily because of problems in ensuring that all Medicaid-eligible Indians are enrolled in the program. IHS must deal with different and changing Medicaid eligibility and coverage requirements in each State; and State Medicaid programs, which are under budgetary pressures of their own, have little incentive to encourage Indian enrollment.**

HEALTH STATUS OF INDIANS

The overall health status of American Indians has improved substantially since IHS assumed responsibility for Indian health programs in 1955. The health of Indians is not yet comparable to that of the general U.S. population (all races), however, and national IHS figures mask wide variations in overall mortality rates and cause-specific mortality rates among IHS serv-

ice areas. Moreover, analyses of the health status of American Indians and the effectiveness of IHS efforts to improve it are limited by substantial data inadequacies. Therefore, all health status data should be interpreted cautiously.

Despite general improvement, much of the Indian population residing in IHS service areas is in poor health relative to the rest of the United States. As shown in figure 5, **in the 3-year period centered in 1981 only one IHS service area, Oklahoma City, had an age-adjusted death rate that was below that of the U.S. all races population** (information on the California service area is omitted because the data are too incomplete to support any conclusions).

Perhaps the most significant indicator of Indian health status is that Indians do not live as long as other U.S. populations. In the 3-year period centered in 1981, 37 percent of Indian deaths occurred in Indians younger than age 45, compared with only 12 percent of U.S. all races deaths occurring in that age group. Consistent with the mortality experience, almost three-quarters of IHS hospital patients in 1984 were under 45 years, compared with 48 percent of inpatients in U.S. short-stay, non-Federal hospitals being in that age group. These differences in age distribution are explained primarily by the difference in causes of illness and death.

For the 1980-82 period, the average age-adjusted overall mortality rate for Indians residing in IHS service areas was 778.3 per 100,000, a rate 1.4 times that of U.S. all races. For females, the age-adjusted mortality rate was 578.7, or 1.4 times that of all U.S. females; for males it was 998.8, 1.3 times that of all U.S. males. **These figures differ markedly from those published by IHS,** because IHS averages all Indian deaths reported in all parts of each reservation State, whether or not IHS has service delivery responsibilities in those areas. In IHS's view, it is necessary to publish data in this way to show changes since 1955, when IHS took responsibility for Indian health but at which time IHS had not yet been structured into service areas. For the 1980-82 period, IHS calculated an average age-adjusted mortality rate for Indians of 568.9, which was essentially the same as that for the U.S. all races population.

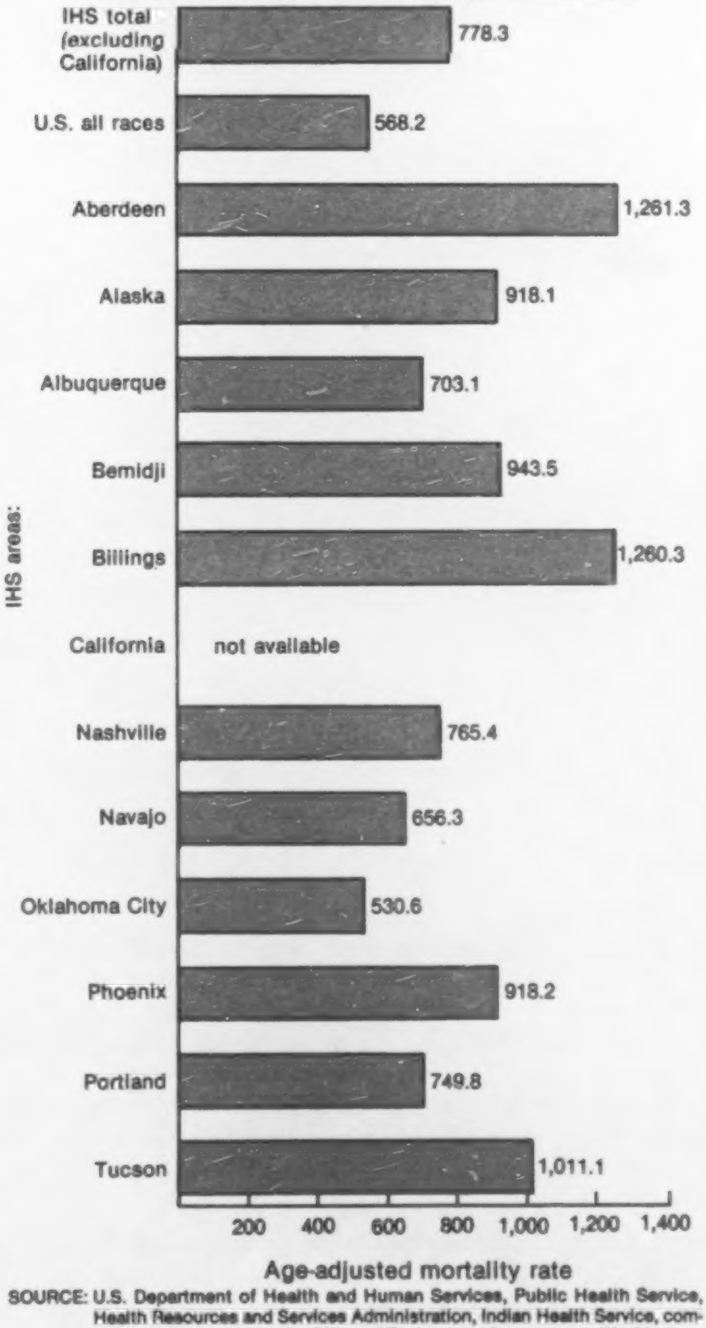
The leading causes of Indian deaths in 1980-82 and their rates of occurrence compared to that of U.S. all races are listed in table 1, using first-listed causes of death.

For U.S. all races, accidents were the fourth leading cause of death. For all IHS service areas, accidents were the second leading cause of death, and in seven IHS areas, accidents remained the leading cause of death. **The accidental death rate for Indians in all IHS areas was 3.4 times that of the U.S. all races rate, and there was no IHS area that did not have a mortality rate from accidents at least 2.2 times greater than the U.S. rate.**

On average, Indian mortality rates due to cardiovascular diseases and cancer were lower than those for the U.S. all races population. However, death rates from heart disease exceeded the rate for the general U.S. popu-

Figure 5.—Age-Adjusted Dealth Rates: American Indians, 1980-82 12 IHS Areas: Both Sexes

(rates per 100,000 population in specified group)



SOURCE: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Indian Health Service, computer tape supplied to the Office of Technology Assessment, Washington, DC, 1985.

Table 1.—Leading Causes of American Indian Deaths and Age-Adjusted Death Rates for All IHS Areas (excluding California) (1980-82), Compared to Age-Adjusted Death Rates for U.S. All Races (1981)

			American Indian		U.S. all races	Ratio
IHS code[a]	Rank[b]	Cause name	Number of deaths	Age-adjusted rate[c]	Age-adjusted rate	American Indian to *U.S. all races*
ALL	. . .	All causes	15,321	778.3	568.2	1.4
310	1.	Diseases of the heart	3,058	166.7	195.0	0.9
790	2.	Accidents/adverse effects	2,946	136.3	39.8	3.4
150	3.	Malignant neoplasms	1,713	98.4	131.6	0.7
620	4.	Liver disease/ cirrhosis	801	48.1	11.4	4.2
430	5.	Cerebrovascular diseases	664	33.8	38.1	0.9
510	6.	Pneumonia/influenza	580	26.6	12.3	2.2
260	7.	Diabetes mellitus	470	27.8	9.8	2.8
830	8.	Homicide	458	21.2	10.4	2.0
820	9.	Suicide	447	19.4	11.5	1.7
740	10.	Perinatal conditions	331	9.8	9.2	1.1
640	11.	Nephritis, et al	229	12.4	4.5	2.8
730	12.	Congenital anomalies	205	6.5	5.8	1.1
540	13.	Chronic pulmonary diseases	177	9.6	16.3	0.6
090	14.	Septicemia	122	6.5	2.9	2.2
030	15.	Tuberculosis	77	4.2	0.6	7.0
		All others	2,910	144.4	67.5	2.1

[a] Comparable to ICD-9 Codes; available from IHS.

[b] Ranked by number of deaths.

[c] Note that age and sex distributions are for reservation States and may or may not reflect age and sex distribution in IHS areas.

SOURCES: **U.S. All Races:** U.S. Department of Health and Human Services, Public Health Service, National Center for Health Statistics, "Advance Report, Final Mortality Statistics, 1981," *Monthly Vital Statistics Report* 33(3):Supp., DHHS Pub. No. (PHS) 84-1120 (Hyattsville, MD: PHS, June 22, 1984); **Indians in IHS areas:** U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Indian Health Service, computer tape supplied to the Office of Technology Assessment, 1985.

lation in four IHS areas: Aberdeen, Bemidji, Billings, and Nashville. In each of these four areas except Billings, heart disease was the leading cause of death. Cerebrovascular disease also was a leading cause of death in all IHS areas, and it exceeded substantially the U.S. all races rate in these same four areas plus Alaska. **Similarly, the mortality rate due to all types of cancer, which was the third leading cause of death in IHS's service population, exceeded the rate for the U.S. all races population in five IHS areas.** Some IHS areas have experienced high mortality rates for particular types of cancers, such as for cancers of the digestive system in the Aberdeen and Alaska areas.

Diabetes mellitus was the seventh leading cause of death in the IHS service population. During OTA field work for this assessment, medical professionals in several IHS areas cited the rapidly increasing incidence of diabetes as a serious concern. Despite a 10-percent decline between 1972 and 1982 in crude death rates from diabetes, the age-adjusted mortality rates for Indians exceeded the U.S. all races rate in every IHS area but Alaska, where diabetes was not among the 15 leading causes of death. **The overall**

diabetes death rate for Indians in IHS service areas was 2.8 times the U.S. all races rate; and in the Aberdeen IHS area, it was 5.2 times the U.S. rate. Kidney failure was one of the common sequelae of diabetes, and **deaths in the IHS population due to renal failure exceeded the U.S. all races rate by a ratio of 2.8.**

Pneumonia and influenza remain common causes of death among Indians. In the 3-year period centered in 1981, the category combining pneumonia and influenza was the sixth leading cause of death among Indians, as it was for U.S. all races. For Indians, however, the 1980-82 rate represented almost a 50-percent decline in deaths from pneumonia and influenza since 1972-74; yet it still was nearly twice the mortality rate for U.S. all races. In the Aberdeen area, the pneumonia and influenza mortality rate was almost four times the U.S. rate in 1980-82. On the other hand, Indian death rates due to chronic pulmonary diseases (the 13th leading cause of death) were below the U.S. all races rate, even when age-adjusted, for all IHS areas combined and in all individual IHS areas but two.

While suicide and homicide were the 10th and 11th leading causes of death for U.S. all races, they were the 9th and 8th leading causes, respectively, among Indians residing in IHS service areas. **The 1980-82 crude death rate due to suicide among Indians exceeded the U.S. all races rate by a ratio of 1.7.** There was only one IHS service area (Oklahoma City) for which the age-adjusted suicide mortality rate was lower than that for U.S. all races. **Furthermore, suicide tends to claim the lives of younger Indians: the Indian age-specific death rates for suicide exceeded those of the U.S. population for all age groups up to age 44, and in the 15 to 24 year age group, the Indian death rate was 3.2 times greater than the U.S. rate.**

The homicide mortality rate among Indians in each of the IHS service areas was greater than the U.S. all races homicide mortality rate. **On average, an Indian residing in an IHS service area was [illegible] times as likely to** 2 **die as a result of homicide than was a member of the general U.S. population.**

Infant deaths have declined since 1972 in the U.S. population at large and among Indians. In the 3-year period centered in 1981, however, infant mortality rates in the IHS service population exceeded the rate for U.S. all races in all but two of the IHS service areas (excluding California). The overall IHS infant mortality rate of 13.3 deaths per 1,000 live births in 1980-82 was 1.1 times the U.S. all races rate. When infant deaths are analyzed in more detail, it is the first year of life rather than the period immediately following delivery that is most dangerous for Indian infants. The IHS neonatal death rate (deaths occurring in the first month of life) was lower than that for U.S. all races (Indian neonatal death rates exceeded the U.S. rate in only two IHS areas), but death rates among Indian infants in the post-neonatal period (from 1 to 12 months of age) exceeded the U.S. rate in all IHS areas but one.

Alcohol abuse is implicated in Indian deaths and illnesses from many causes, including accidents, suicide, homicide, diabetes, congenital anomalies in infants, pneumonia, heart disease, and cancer. A high prevalence of alcohol abuse can be inferred from the extremely high rates of death due to liver disease and cirrhosis of the liver in almost all IHS areas. In 1980-82, there were 801 deaths in which liver disease or cirrhosis was listed as the underlying (chief) cause. This represented an age-adjusted death rate among Indians of 48.1 per 100,000, which was 4.2 times the U.S. all races rate. **In one IHS area, the death rate from liver disease and cirrhosis was 10 times the U.S. rate, and there was no IHS area in which the Indian rate was below the U.S. rate.**

Mortality rates, of course, are not ideal indicators of a population's health status. A number of important health problems can be described only from epidemiologic surveys or patient care data. Used cautiously, IHS inpatient and outpatient utilization statistics may be applied to supplement an evaluation of Indian health status. For example, patient care utilization data indicate that otitis media is a severe problem among Indian children. In 1984, otitis media accounted for 5.7 percent of all outpatient encounters for males in the IHS system, and 3.7 percent of the encounters for females. In the same year, the rate of hospitalization for otitis media in IHS and contract care hospitals was 18.0 per 10,000 population, compared with a rate of 12.8 per 10,000 in U.S. short-stay, non-Federal hospitals. This hospitalization rate reached 63.9 per 10,000 in Alaska.

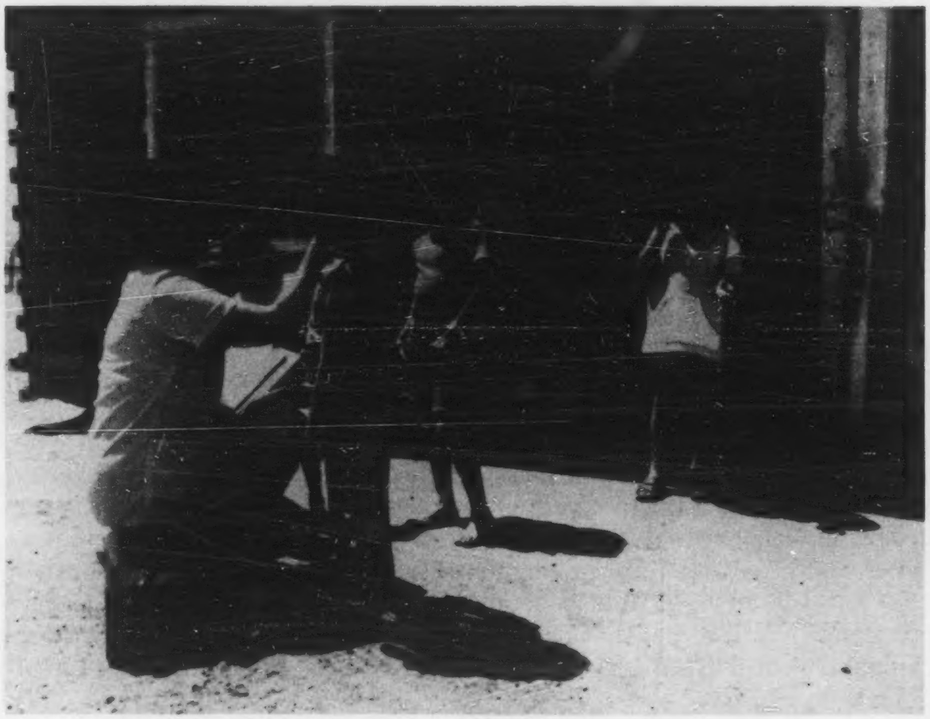


Photo credit: Indian Health Service

A community health nurse examining Indian children at home.

There is considerable variability among IHS service areas and between IHS service population and U.S. all races rates in the relation between hospitalization and mortality rates. This is due only in part to the younger age distribution of American Indians and missing data and may indicate lack of access to services. Using U.S. short-stay, non-Federal hospitals as a benchmark, IHS hospitalization rates (in both direct and contract care hospitals but excluding two tribally run hospitals) generally were inconsistent with mortality rates for accidents and violence, circulatory system diseases, malignant neoplasms, alcohol-related conditions, diabetes, congenital anomalies, and conditions arising in the perinatal period. For all of these conditions except the last, average IHS hospitalization rates were low relative to cause-specific Indian mortality rates, although there were substantial variations among IHS service areas.

The example of the Portland IHS area may provide a partial explanation for the apparent lack of relationship between causes of death among Indians and cause-specific hospitalization rates. In the Portland area, IHS operates no hospitals and must purchase all inpatient care through the contract care program, which has been used in recent years to purchase only emergency and urgent care because of limited funds. The number of hospital discharges for the Portland IHS service population in 1984 was almost identical to the number in 1979, despite a 41-percent increase in the service population size. As a result, Portland area hospital discharge rates for most diagnostic categories were well below what might have been expected based on the mortality data. Limited IHS health services may have similar effects in reducing IHS hospitalization rates in the Bemidji, Nashville, and California service areas.

Hospitalizations for mental disorders have been declining in the IHS system more rapidly than in all U.S. short-stay, non-Federal hospitals, and mental health problems are not among the 15 leading reasons for IHS outpatient visits. One explanation for this finding is that many mental health and alcoholism treatment programs are tribally operated under self-determination contracts, and thus may not be included in IHS data reporting systems. However, mental health services are regarded by Indians and IHS area office staff as relatively unavailable in most IHS areas; alcohol treatment and prevention programs are also conceded to be inadequate to meet the need for them.

There is very little information on the health status of Indians living in urban areas, despite the fact that they constitute about 54 percent of the total Indian population. IHS does not collect much cause-specific patient care information from urban programs, nor does it analyze or publish vital statistics and population characteristics for urban Indians except when those data are included with national level data on the reservation States or included in service area data (some urban programs are located in IHS service areas).

Vital statistics for Indians residing in Standard Metropolitan Statistical Areas (SMSAs) were provided to OTA as part of the 1980-82 mortality data set. Thus, OTA was able to generate some death rate information on

Indians living in urban areas. Because of the lack of age-specific Indian population data for urban areas, however, OTA was not able to generate age-adjusted rates. Mortality rates for Indians in urban areas therefore may be compared only with the crude death rates for other Indian populations, or with crude death rates of the total population of particular urban areas; they should not be compared with U.S. all races age-adjusted rates, the standard of comparison generally used in this report.

On average, Indians in urban areas have essentially the same pattern of causes of death that is found in IHS service areas. The leading causes of death for Indians in urban areas were: 1) diseases of the heart; 2) accidents, particularly motor vehicle accidents; 3) cancer; 4) liver disease and cirrhosis; 5) cerebrovascular diseases; 6) homicide; 7) diabetes mellitus; 8) suicide; 9) pneumonia and influenza; and 10) conditions arising in the perinatal period.

MAJOR ISSUES IN FEDERAL INDIAN HEALTH POLICY

Eligibility and Entitlement

Federal-Indian relationships historically developed between the Federal Government and individual tribes or groups of tribes. Current relationships are based primarily on this cumulative experience and not on any relationship between the Federal Government and some type of "United Nations" of all tribes. Thus, there is tremendous variability in eligibility, ranging from tribes with land-based reservations, to tribes that have retained close social and cultural ties among its members but who no longer have a significant land base, to Indians who may or may not be members of a tribe but who retain access to Federal benefits because they are descendants of previous beneficiaries.

To be eligible for IHS direct services, a person need only be of Indian descent and be regarded as an Indian by the community in which he lives as evidenced by factors in keeping with general BIA practices. To be eligible for services not available within IHS's direct care system and which therefore must be purchased through contract care, there are the additional requirements that the potential patient: 1) actually reside "on or near" a federally recognized tribe's reservation, which has been generally defined in the regulations as consisting of the county or counties containing or adjacent to the reservation (contract health services delivery areas, or CHSDAs); and 2) be a member of the tribe served or be recognized by the tribe as having close economic and social ties with it. Thus, the current IHS system is keyed to reservation-based Indians, but any Indian is eligible at least for IHS direct services. There are, of course, practical constraints in taking advantage of the IHS system, such as the physical location of IHS facilities and limits on available resources, which may mean a long wait for elective care.

Currently, individual Indians need not register with IHS prior to seeking care. IHS estimates its service population through the use of census data for counties meeting the CHSDA criteria, that is, for the same geographic areas in which Indians must live to qualify for contract care. (This situation is not unlike the VA medical care system, in which all veterans are potentially eligible for VA care. Veterans must show proof of their eligibility when seeking care, as do Indians for IHS care, and there is no preregistration requirement in either system. The VA, however, does have a priority system that favors veterans with service-connected disabilities, indigent veterans, and veterans over 65 years of age.)

Toward the end of 1985, IHS was considering three changes in its eligibility policies: 1) using a registration system started in January 1984 to obtain more accurate accounting of IHS's service population instead of relying on census-based population estimates; 2) combining eligibility criteria for direct and contract care so that a potential IHS patient must reside in defined geographical areas; and 3) imposing a minimum Indian blood quantum requirement of one-quarter for members of federally recognized tribes and one-half for other Indians. According to IHS, combining eligibility for direct and contract care would make IHS a single rather than a dual system of care. A minimum blood quantum requirement is being considered because the present descendancy provision means that the eligible population is and will continue to grow much more rapidly than IHS appropriations. **Limitations on eligibility are being proposed by IHS to engage Congress and the tribes in debate on the issue of budget pressures, which must be addressed either by increasing funds, cutting services, or limiting eligibility.**

The registration system is a reasonable step in determining who among the self-identified Indians in the U.S. Census are not only eligible for IHS services but also may reasonably be expected to make use of such services. The registration system should also contribute to resource allocation decisionmaking (discussed in the next section), which, as one of its basic parameters, requires an accurate count of the Indian population that IHS serves. However, use of the registration system as a factor in determining an IHS service area's budget would have negative effects in areas that have not yet reached many members of the eligible population, as might be the case for recently recognized tribes. These effects will be greater if the registration system is directed only at those patients who are actually treated, instead of advertising and promoting the need to register with IHS regardless of any immediate need for medical care. Thus, **if the purpose of registration is to obtain a better account of IHS's actual and potential user population, and not another means of restricting eligibility, it would be reasonable for IHS to implement its registration system over a few years and to take active steps to register eligible Indians.** After this initial enrollment period, IHS could then operate like a typical health insurance plan. For example, IHS could limit services to enrollees, with open enrollment periods every year and provisions for emergency care for patients who would have been eligible for services had they been enrolled.

Combining eligibility for direct and contract care may not have a large impact on IHS's present clientele. IHS already estimates its service population to be Indians living in essentially the same geographic areas that determine who is eligible for contract care. Currently, eligibility for contract care is further limited to tribal members and other Indians who are officially recognized by the tribe as having close economic and social ties with it. Indians not living in the specified geographic areas would be adversely affected by this proposal, but Indians living in these geographic areas and not members of the tribe(s) served by the local IHS facility would no longer have to prove that they have close economic and social ties with the tribe(s).

A minimum blood quantum requirement for eligibility would be extremely controversial, not only because of the racial overtones if the Federal Government rather than a tribe imposes it, but also because it would be seen as an encroachment on the authority of tribal governments. Representative of this view is the statement of one tribal chairman that "blood quantum eligibility for IHS patient care should be set by individual tribes as to correlate with tribal standards for tribal enrollment."

In sum, IHS is proposing to restrict eligibility by defining where Indians can live and still be eligible for IHS services, and by establishing a minimum Indian blood quantum requirement of one-quarter for members of federally recognized tribes and one-half for other Indians. Alternatives to this approach include:

Option 1: IHS or Congress could develop a priority system for access to IHS services.

Rather than excluding whole categories of currently eligible Indians, IHS or Congress could develop a priority system similar to the one that exists in the VA medical system. For example, the IHS proposal could be modified by giving priority in descending order to: 1) tribal members who live on or near the reservation; 2) members of the Indian community who have close economic and social ties to the tribe; and 3) all other currently eligible Indians.

Option 2: IHS or Congress could use blood quantum criteria to supplement rather than restrict eligibility criteria based on tribal membership.

One such approach could be to specify that Indians eligible for IHS services would consist of members of federally recognized tribes without a blood quantum requirement, plus descendants of members of federally recognized tribes who were at least one-quarter Indian blood. The latter category may grow in importance as tribal members increasingly marry outside their tribes, because their descendants may be ineligible for membership in any specific tribe if they do not have the minimum tribal-specific blood quantum required for tribal membership, even if their degree of total Indian blood remains high.

An unresolved issue in this option is the variation among tribes in the use of blood quantum to determine membership. Many tribes have a minimum tribal-specific blood quantum requirement for membership, the most common being one-quarter or more, but there are many tribes that only require members to be descended from a member. (There are variations even in descendancy requirements, e.g., membership only through maternal lineage.) While tribes and Indian people in general are understandably very sensitive to the issue of blood quantum, this promises to be an increasingly divisive issue in the future as tribes with only descendancy requirements grow much more rapidly than tribes with some type of blood quantum requirement.

Of course, the IHS initiative to limit services to persons with at least one-quarter Indian blood is directed at this issue, but as already noted, it clashes with tribal political authority. A partial solution may be found by examining what membership means for tribes that have descendancy rather than blood quantum requirements. Some tribes have several categories of membership, with the lesser categories not eligible for all rights of tribal citizenship (e.g., voting or receiving occasional per capita payments from tribal enterprises). These special membership categories may have been established so that the larger tribal community could receive Federal services from BIA and IHS. Thus, **"membership" for the purposes of IHS eligibility could be defined as including only those members of a tribe who have the right to participate in all political and economic activities of the tribe.** By linking eligibility for IHS services only to those members who have the power to determine who controls the tribal government, there should be a built-in incentive for tribes to be conservative in their membership criteria. This may even be the case for tribes with only descendancy as a requirement for full membership. These tribes are aware of the increasing difficulties in both tribal governance and preservation of their resources because of their descendancy provisions, and may feel compelled to move in the future toward more conservative criteria for tribal membership.

Option 3: If eligibility criteria are made more restrictive, Congress could make IHS services less a residual source of care and more an entitlement program.

The proposed IHS restrictions on eligibility are based on limiting services to members of federally recognized tribes and other Indians who live on or near reservations. Thus, there would be a closer link between Federal health benefits and the government-to-government relationship between the Federal Government and Indian tribes. If this is the direction that Federal policy follows, then it is reasonable to argue that health care should become an explicit part of the trust responsibility. The legal relationship between the Federal Government and Indian tribes, in which there are presently no trust rights for Indian health care, is no impediment. **Congress has the power to decide whether or not health services should be part of the Federal trust responsibility. All the courts have said is that it is an option for Congress to provide health services to Indians as a discretionary or guaranteed benefit.**

The current position of IHS is that it is a residual payer to other resources available to its service population. Congress could change this situation and establish a trust fund similar to that for Medicare, thereby providing an entitlement health care program for Indians. Alternatively, Congress could continue with yearly appropriations but establish a more comprehensive services package for eligible Indians, such as those long available to military personnel and their dependents, and to veterans. The Defense Department and the VA purchase services that are not available in their own medical care systems from the non-Federal sector for their members and dependents (10 U.S.C. 1071-1090; 38 U.S.C. 601-654). The military and VA contract health programs are much more generous than IHS's contract care program. They provide a wider range of benefits and will approve contract care when it is difficult to reach a military or VA facility, in addition to purchasing care not available in these facilities. In contrast, eligibility for IHS's contract care program is limited to Indians living in the general vicinity of Indian reservations and expressly excludes Indians who do not live nearby. Thus, Federal programs for special populations already exist that can serve as models for providing vested or more reliable and comprehensive sources of care than are currently provided to Indians.

This approach could be used to help support specific policies. For example, one policy might be to limit IHS services to tribal members but to preserve tribal sovereignty by not dictating to the tribes who among their members would be entitled to services (the IHS proposal would limit eligibility to tribal members who had a minimum degree of Indian blood of one-quarter). If eligible Indians had to use specified non-IHS providers when IHS direct services were not available, such as an HMO, tribal members who live far away from the reservation would have difficulty in making use of services, but IHS would not have to dictate to the tribes who among their members would be IHS-eligible. In contrast, a Medicare-type insurance policy could be used anywhere. The availability of services through HMO-type organizations obviously varies tremendously and may not be available in many parts of the country where IHS provides services, but it could be IHS policy to seek out and encourage these types of organizations.

Resource Allocation and Scope of Services

IHS has traditionally allocated its appropriations among its 12 service areas through a "historical" or "program continuity" budget approach. Thus, each area could expect to receive its recurring base budget from the previous year, plus an increase in mandatory cost categories (e.g., personnel cost-of-living and relocation expenses, supply cost increases) equal to the percentage increase in those categories awarded to the overall IHS program. This method of allocating resources was challenged in the 1970s in the *Rincon* decision (described above). The court criticized the historical budgeting approach, found that IHS was obligated to provide health services to Indians in California that were comparable to those offered Indians elsewhere in the United States, and determined that IHS was obligated to allocate its limited resources equitably by the consistent application of reasonable distributive standards.

IHS proposed using an equity fund to be allocated by a needs-based formula as its means of achieving comparability among the tribes. For fiscal years 1981 to 1984, the congressional appropriations committees earmarked about 1.3 percent of the total IHS health services appropriations annually for an Equity Health Care Fund, or about $7 to $9 million per year. Indians in California received about 35 percent of this amount. Although Congress did not earmark equity funds in fiscal year 1985 appropriations, IHS set aside $5 million of its appropriations, as it has a continuing obligation to reduce these funding disparities.

For fiscal year 1986 appropriations, IHS planned to apply an equity-based formula to any funding increases (including mandatory budget category increases) over the 1985 area base budgets. In addition, the population figures for each area were to be based on the patient registration system (begun in January 1984) rather than on the census-based estimated eligible service population.

The effects of the equity funds are cumulative. Equity awards become part of the recurring base budget and thus are guaranteed in future years as long as overall IHS allocations continue to cover the increase. These equity awards can have a significant impact on upgrading services, particularly among small tribes, where the increase can represent significant additions to their previous budgets. New equity funds, however, continue to represent less than 2 percent of the total IHS services budget and do not play a major role in the overall IHS budget allocation process, which continues to be driven by the historical funding approach.

The larger issue of **a more equitable distribution of the overall IHS clinical services budget has been a topic of discussion for years, and tribes throughout the United States increasingly have pressed for a resolution of the matter.** For example, the Navajo Tribal Council passed a formal resolution in response to this OTA assessment, calling for "the consistent application of reasonable distributive standards," through the use of "a set of economically and epidemiologically-based formulae" which take into account "the continually changing health conditions of the various tribes, shifts in the geographic distribution of eligible Indian beneficiaries, and regional differences in the availability of alternative health care delivery systems." The Northwest Portland Area Indian Health Board made suggestions along similar lines, identifying the key points in resource allocation as including population, the benefits package provided, the alternative resources available, and cost differentials between IHS areas.

There are major impediments to the development of a redistribution formula for the total IHS clinical services budget that would be generally accepted by most parties. These impediments include: 1) lack of agreement on what constitutes the eligible population; 2) differences in the degree and type of services currently available in IHS service areas; and 3) questions on the validity of the data that would be used in applying a reallocation formula.

IHS uses estimates of its eligible population that are based on the most recent census data, adjusted by birth and death statistics. Under a historical budgeting system, the accurateness of these estimates was not crucial, since the budgets would not have been adjusted for per capita differences in funding between IHS areas. The patient registration system initiated in January 1984 will provide more reliable information on eligible and potential users for resource allocation purposes, but if it is applied before adequate efforts have been made to seek out and register eligible Indians, it could reward areas with high use or successful enrollment efforts while penalizing areas with unmet need. Several areas already are operating under severe budget restrictions, especially in the contract care program. Present patterns of use in those areas do not reflect need, and the expressed demand for services is also likely to be artificially low because of these restraints.

In addition, there is the larger underlying question of who is (or ought to be) an Indian for the purpose of eligibility for IHS services. This controversy includes the descendancy versus blood quantum requirements discussed in the previous section, and the status of Indians in terms of Federal recognition. The descendancy issue surfaces most often when the Oklahoma area is discussed, because of the common belief among Indians elsewhere that many of the users of IHS services in Oklahoma may be descended from Indians but are only nominally Indians. The Federal recognition issue is most applicable to the California area, where tribes have a bewildering mixture of different types of recognized and unrecognized status, largely because of past government policies. The California area, then, would also be immersed in controversy over the number of Indians who are eligible for IHS services.

The scope of services available in IHS areas is not uniform. Thus, before funds are redistributed, there has to be agreement on how these differences should be factored into any redistribution formula. One criterion for redistributing resources that has been suggested and examined by IHS is the availability of alternate resources. In fact, the method that IHS has developed to distribute its equity funds subtracts these alternate resources in calculating area funding needs. This policy penalizes areas that make the most efficient use of their IHS funds and provides built-in incentives not to be too aggressive in third-party collections. On the other hand, this policy could have the effect of shifting more funds to areas heavily dependent on contract care. In the contract care program, efforts are made to have other resources pay first before contract care funds are authorized. Since the contract care program does not actually collect money from these other sources, areas heavily dependent on contract care would not have these payments subtracted from their budgets.

There are serious deficiencies in most of the health data on Indians, including data on their health status and their use of IHS and contract care services. This has been a problem for OTA throughout this assessment, and much of the data we have provided has had to be qualified in terms of its completeness and accuracy. Nevertheless, OTA has provided its best estimates of such indicators, because much of this information is not readily accessible. It is hoped that the information provided in this report will serve as a common starting point for negotiations among Indian tribes, Congress, and IHS on equitable methods of resource allocation.

Option 4: Continue with the modest, incremental approach to resource redistribution that IHS has implemented.

An equity fund, whether provided through earmarked congressional appropriations or through a set-aside by IHS of a small portion of its appropriations, **is the least controversial method to implement, but it has only a modest impact.** Past and current redistribution decisions have been applied only to increases in IHS appropriations. This impact could become more substantial if budget reductions, instead of increases, are made by Congress as part of its overall efforts to reduce the Federal budget deficit, and if IHS became more assertive in decreasing some area budgets instead of trying to minimize the impact of the reallocation process.

At the end of 1985, IHS area directors had agreed to reserve any funding increases over the level of the 1985 base budgets, including mandatory budget category increases, for special distribution by an equity-based formula. In the first year of this potential distribution, however, no area would receive less than its 1985 funding. Thus, while the principle of the equity approach has been accepted by IHS area directors, it remains to be seen if it will be accepted and implemented if additional funds are not available and, instead, budget reductions must be made.

Congress could make this incremental approach mandatory either through earmarking of part of the annual appropriations, or through legislation specifying the percent of IHS appropriations that should be subject to reallocation.

Option 5: Accelerate the rate of reallocating funds among IHS areas.

The general approach taken by IHS could be implemented on an expanding basis, with the proportion of reallocated IHS funds increasing from one year to the next. This approach could also be implemented either through earmarked appropriations or through legislation. However, such a move would be much more controversial than the present, modest reallocation, and greater discussion and consensus on the criteria for redistribution would be needed by the tribes and IHS area offices.

Option 6: Work toward a common minimum services package for all IHS areas.

A different approach that is not entirely directed at gaining funding equity among IHS service areas would be to focus on the services that are available to the individual Indian beneficiary. A principal objective in equity funding is to ensure that eligible Indians everywhere have access to care that is appropriate to their needs. But equity in the sense of relative need may prove to be an elusive concept, considering the complicated factors that have been identified as essential parts of the formula, and the necessity of having to convert these complicated factors into monetary amounts.

Equity can also be viewed in terms of access: **if eligible Indians in all IHS service areas generally have access to the same types of services, much of the dissatisfaction over the present allocation of resources might be muted. A common services package would have to include both direct and contract care services for two reasons: 1) to neutralize the present disparity between IHS areas in the mix of direct and contract care services available, and 2) to ensure that eligible Indians in all areas have access to the same range of services.** A common services package is probably best accomplished by limiting access to non-IHS providers. For example, instead of paying for care from any non-IHS provider, services could be limited to designated non-IHS providers on a prepaid basis, such as HMOs where available.

Availability and Adequacy of Resources

IHS provides ambulatory and hospital care and purchases services not available at IHS facilities. In some areas, only ambulatory care is provided directly, either through IHS or tribally administered clinics. There are also a few demonstration programs in purchasing all care from outside providers, such as the Pascua-Yaqui HMO mentioned earlier. Those demonstration programs reflect the variability around the United States in the availability of alternative methods of providing and financing health services, and also indicate the basic changes that are occurring in the United States' health delivery systems.

Approximately 26 percent of the IHS clinical services budget is spent on contract care. **Despite the policy that alternative resources must be used first, many IHS areas have had to limit the use of contract care to emergency and urgent cases.** Furthermore, a few high-cost cases can quickly deplete a service unit's contract care budget, and several area offices have set aside a portion of their contract care dollars in a contingency fund for such events. In the 1984 Indian Health Care Improvement Amendments that were vetoed by President Reagan, Congress had addressed this problem by establishing a $12 million revolving fund for high-cost contract care cases (the "Catastrophic Health Emergency Fund") that would pay for contract care cases once a threshold of between $10,000 to $20,000 had been exceeded. The adequacy of this proposed fund was examined by OTA in detail, and the results of our analysis are summarized later in this section.

Several factors suggest that IHS will become increasingly reliant on the contract care program. The present IHS and tribal network of hospitals and clinics is limited in the types of services it can provide, and budgetary limits increasingly restrict new facilities construction, the replacement of old and inadequate facilities, and needed maintenance and repair of existing facilities. Diagnostic and therapeutic equipment purchases are limited, further reducing service capabilities. This limitation is due to the overall Federal budget situation and in part to the practical limitations of delivering comprehensive and specialty services to many widely dispersed, small populations.

Perhaps the most critical factor that in the near future may orient IHS away from direct care to greatly increased contracting is the growing problem of how to recruit and retain adequate medical staff. IHS depends on the PHS Commissioned Corps and on the service payback obligations of NHSC trainees for many of its physicians, nurses, and other medical and administrative staff. The Commissioned Corps is not a growing resource. The NHSC program is being eliminated, and the last trainees will be available to IHS in 1990. If IHS staff positions cannot be filled, IHS will have to turn to the services of private providers, where they exist, under the contract care program.

High-Cost Cases in the Contract Care Program

"Catastrophic health costs" usually refers to the devastating financial effects that extremely costly and long-term illnesses can have on individuals who may have no insurance or who may be inadequately insured. Catastrophic costs most often are defined in terms of out-of-pocket costs to individuals that exceed a certain percentage of individual or family income, or as total costs per case in the range of $20,000 to $25,000 and above. In the IHS contract care program, the costs of catastrophic illnesses not covered by other payers are borne by IHS, not by individual Indians (although there may be cases that are disputed between IHS and another payer as to whom is the responsible party, leaving the individual Indian caught between the two). **The discussion of catastrophic costs in the IHS contract care program, therefore, has revolved around the idea of a limit for individual service unit obligations to be set somewhere between $10,000 and $20,000 per case, with costs over this threshold to be covered by a special revolving fund.** This fund, as explained above, would have been set at $12 million.

The data that OTA was able to obtain on the types, incidences, and costs of these cases were incomplete and poorly identified. Thus, it was not possible to determine from the available data whether what is called a problem of catastrophic care is in fact a problem of excessive incidences of catastrophic conditions in the Indian population, or whether it is more properly described as a budget management problem. Nor was it possible to consider alternative financing arrangements for these cases because of the lack of actuarially reliable data and the relatively small number of cases identified (i.e., small in terms of basic insurance principles on risk-spreading). Nevertheless, the data were sufficient to reach the following conclusions.

Based on the 1983 high-cost case experience in IHS, if the threshold was set at $10,000 per case, at least $5.5 million of the $12 million fund would have been needed to cover IHS contract hospital expenditures alone. Areas with higher average costs per case, such as Alaska, could expect the most relief. Some areas, such as California and perhaps Bemidji, would not benefit from the special fund, because they presently cannot afford to spend up to the threshold figure to qualify for the fund.

If the threshold was set at $15,000 per case, total outlays would have been a minimum of $3 million, and 2 of the 10 (of 12) IHS areas in the 1983 data set would not benefit at all. A $20,000 threshold per case would require outlays of about $1.2 million and assist only 4 of 10 areas. Including estimated nonhospital costs (physicians' fees, lab work, etc.) of from 16 to 30 percent of the hospital costs, the $12 million fund still would have been adequate in 1983 whether the threshold was set at $10,000, $15,000, or $20,000.

Problems in identifying high-cost case records to make up the data sets used in this analysis suggest that undercounting of cases may be considerable. Furthermore, the effects of health cost inflation could be substantial. For example, the 1983 data set included 524 cases, and there were originally 390 cases identified for 1984. When the 1984 billing file was searched again in October 1985, 746 high-cost case records were found. Since the data set identified any cases that cost the contract care program $10,000 or more, it might be expected that the number of cases would increase significantly from year to year from cost inflation alone. Thus, there is justifiable concern whether a $12 million fund would be adequate for very long.

Conclusion.—A high-cost care fund to spread the financial burden of high-cost contract care cases among all IHS service areas is a reasonable approach, whether those funds are derived from additional, earmarked appropriations or set aside from overall contract care funds. However, the fund would not assist IHS service areas that are not able to pay for contract care up to the threshold (between $10,000 and $20,000 per case) before the fund becomes available. **If the high-cost care fund is financed by setting aside a portion of contract care funds instead of from additional appropriations, IHS service areas that would not benefit from the fund could be exempted from having a portion of their contract care allocations redirected to the high-cost fund. For those service areas that would benefit from the high-cost fund, different thresholds to trigger eligibility for funds could be considered, since a common threshold would clearly favor a few areas over others. Finally, high-cost cases seem to be a budget management problem in the contract care program rather than a problem of excessive occurrences of catastrophic conditions. The possibility of incurring high-cost cases has led several IHS service areas to set aside a portion of their contract care funds. This practice can lead to severe rationing of contract care early in the fiscal year, followed by accelerated spending at the end of the year if the expected high-cost cases did not materialize. One method to alleviate this situation is to give IHS the authority to carry over a portion of its contract care appropriations into the next fiscal year (see option 8 below).**

Options To Improve the Cost-Effectiveness of the Contract Care Program

Given expected rates of increase in general health care costs relative to likely IHS budget increases, even the most efficient management techniques will not be able to overcome the problems of inadequate funding and a growing service population in the IHS contract care program. However, the following options could help to mitigate some of the financial problems.

Option 7: Negotiate payment rates with contract care providers instead of paying 100 percent of billed charges, and impose a rate structure on IHS contractors, such as use of Medicare DRG (diagnosis-related groups) rates.

IHS could negotiate more aggressively, wherever possible, to obtain better prices for the services it purchases. Instead of paying full billed charges, which many service units do, bargaining for reduced fees and encouraging competition among contract providers could be undertaken by several service units acting in concert or by the area office. Use of Medicare DRG rates could generate substantial savings for the hospital inpatient care portion of the contract care program.

IHS intends to issue a general notice sometime in 1986 that will state that IHS will not use private providers (except in emergencies) unless the provider has a contract with IHS. IHS will not sign a contract with a provider unless it agrees to accept payment at no more than the "Medicare-allowable" rate, whether that rate be based on DRGs for inpatient care or on "reasonable and customary" charges for physician services. This policy would be applied to the 1,300 to 1,400 standing contracts that IHS currently maintains. Whether IHS will be successful in imposing these changes on private providers may depend on the existence of competition among those providers for IHS patients, because at least some providers can be expected to refuse to participate in the contract care program if these payment changes are made.

Option 8: Authorize IHS service units to carry over a percent of contract funds from one fiscal year to the next.

Although some tribally operated contract care programs may exercise this option, service unit contract care programs managed by IHS are not allowed to carry over funds, which further limits the ability to manage the program. Services may be restricted too severely early in the fiscal year in order to conserve funds, then virtually any service request may be authorized at the end of the year, including previously deferred services, to close out the budget. Congress could authorize IHS to carry over a certain percent of the annual allocation, perhaps 5 or 10 percent, to ease this problem.

Option 9: Provide greater IHS headquarters and area office support to service unit contract care programs in dealing with alternative resources, both public (especially State Medicaid programs) and private.

In order to utilize alternative resources most effectively, the contract care program must be able to respond to changes in the general health care environment that will affect services to IHS beneficiaries. Changes in State Medicaid programs can have significant impacts on IHS contract care programs. For example, in the State of Washington, a health services program for the medically indigent that included a large number of Indians was discontinued for about 6 months in 1985. The Portland area office estimated that if the program was not reinstated (it was reinstated in October 1985, but its future was uncertain), additional costs to the Portland IHS contract care program would have totaled at least $2 million per year. In Arizona, recent implementation of a Medicaid program has brought about a major realignment of IHS, county, and State health programs available to Indians. Thus, IHS contract care programs must keep current about changes in State Medicaid programs and assist all eligible Indians in enrolling and maintaining eligibility in those programs.

Option 10: Explore possibilities of developing long-term relationships with community facilities and of providing more services to non-Indians.

For IHS, discount rates might be possible if community facilities were assured a certain amount of referrals. If services were provided to non-Indians with the approval of the tribe(s), the extra revenues might make it possible for the program to provide a wider range of services than would be available if only Indians were served. (Some tribal and IHS programs already serve non-Indians with the consent of the affected tribes.) This would be consistent with the policy of self-determination, with the extra revenues used to improve services delivery. Congress already authorizes IHS to serve non-Indians in specific locations (e.g., Alaska), and the vetoed 1984 Indian Health Care Amendments would have provided this authority throughout IHS service areas, subject to the consent of the specific tribes affected.

Self-Determination and Tribal Assumption of Federal Indian Health Services

Under the Indian Self-Determination and Education Assistance Act of 1975 (Public Law 93-638, commonly known as the "638" law or program; see 25 U.S.C. 450, *et seq.*), tribes have the option of taking over the administration of programs managed by BIA and IHS. For tribes that have been provided direct IHS services, self-determination programs have often involved limited activities instead of the entire range of medical and health-related services. Indians that have most recently been added to the IHS service population (through restoration of their Federal status), such as in California and especially the Eastern United States, however, have received health services primarily through self-determination contracts. Under these contracts, tribes or their representatives, instead of IHS, operate outpatient clinics and purchase specialty and inpatient services through contract care.

The Self-Determination Act modifies the standard cost-reimbursement or fixed-cost contract. Federal procedures for procurement contracts require an "arms length" relationship between the Federal Government and the contractor. The government may unilaterally order changes in the scope of the contract and may terminate the contract at its convenience, while the contractor may not. Federal labor laws and equal opportunity provisions also apply to the contractor. On the other hand, in self-determination contracts, IHS and BIA are directed to assist tribes in developing contracts and to enter into all proposed contracts unless there are compelling reasons not to do so. All changes require the consent of the contractor. While the government may reassume management of the contract only for specified reasons, the contractor may terminate the contract and return management to IHS (retrocession) on 120 days' notice. Employees of tribal contractors are not subject to some Federal labor laws, and Indian preference in employment and training supersedes equal opportunity rules. Tribal contractors also enjoy exemption from bonding requirements and may carry over unspent contract funds to the following year.

The limited involvement in self-determination activities by tribes that have been accustomed to receive direct IHS services may be due to any of a number of factors. First, their lack of experience in administering health care programs has motivated many tribes to start slowly with limited responsibilities. Second, the common perception of tribes seeking to administer more of their own programs is that IHS will not fund their activities at the same

level that IHS itself had to operate the programs, so tribes are reluctant to assume responsibility for a marginally funded program or one with declining resources. This disagreement on funding levels is most often focused on the level of administrative or indirect costs. Tribes point to IHS administrative positions that they believe should be abolished and the funds made available to them. IHS maintains that these positions are needed to monitor the self-determination contracts and to insure that IHS can resume administration of the programs if the tribes decide to return them, because the act allows tribes to retrocede these with 120 days' notice. Third, many IHS service units serve multiple tribes, and the unanimous consent of all tribes within the service unit must be obtained before a takeover will be approved by IHS. Fourth, given the history of Federal-Indian relationships, some Indians suspect that the transfer of program administration from IHS may be another "termination" policy in disguise. Fifth, when tribes have contested IHS's self-determination policies, it has not been clear what they can contest and what procedures they must follow to appeal negative IHS rulings. Finally, Federal employees generally receive higher salaries and more fringe benefits than can be provided by the tribes, so there sometimes is resistance against conversion from IHS to tribal management even by Indian employees. These differences, as well as costs for such items as malpractice insurance that IHS need not account for in its budget but for which tribally administered programs are responsible, have been cited as additional evidence that the tribes are not being offered the same level of resources as has been available to IHS.

A central issue that underlies many of the particular difficulties that have arisen in IHS's implementation of the Self-Determination Act is the apparent difference of opinion between the Federal Government and the tribes as to the intent of the law. While the Federal Government seems to view self-determination primarily as a contracting program, the tribes point out that the law distinguishes 638 contracts from other Federal contracts and suggest that the intent of the law is to support tribes in taking over and managing their own services.

Tribes believe that leadership commitment in IHS has not been strong enough, with little positive guidance provided to the area offices, to which responsibility for self-determination contract administration has been delegated. The area offices vary in their enthusiasm for such contracts and in the specific policies and procedures they apply in contract development, approval, and monitoring. As a consequence, there are uneven efforts to provide tribes with technical assistance to apply for these contracts, to negotiate contracts, and to manage these programs. Problems tribes claim to have experienced in applying for these contracts include: 1) lack of encouragement and adequate technical assistance from area office staff; 2) lack of cost data from area offices; 3) difficulties in some areas in securing and holding project support from 100 percent of the affected tribes (a particular problem in Alaska, with its many small native villages; and tribes can switch their affiliation from one health consortium to another, as sometimes happens in California); and 4) apparent inconsistencies in area decisions to approve or disapprove a proposal.

The contracts that are signed between IHS and the tribes in the self-determination program vary from area to area in terms of the flexibility they permit the tribes. Contracts in some areas specify exactly what services will be provided, to whom, and in what manner. In other areas, comprehensive service delivery contracts allow more room for tribal adjustments. The voucher reimbursement system that is used by IHS, as opposed to the BIA letter of credit approach, is the target of many complaints concerning delays and arbitrary decisionmaking by area staff.

The appropriate instrument to execute the legal and financial relationship between IHS and the tribes is a subject of disagreement. Contracting has been the predominant means, and grants have been used sparingly to support development of tribal capabilities in preparation for contract management. A new option known as a cooperative agreement is under consideration by IHS, but whether it would change the essential relationship is unclear.

Although some area offices seem to fear that the tribes will expand and redirect services contrary to the contract terms, the tribes cite management difficulties that require innovative solutions and argue that flexibility is justified. Conflicts such as these aggravate other disincentives, such as the greatly increased administrative responsibilities of tribal governments and their employees (including full responsibility for collecting applicable third-party reimbursements), the need to develop or expand personnel management and fringe benefits programs, and additional Federal reporting requirements. Self-determination contracts give tribes greater control over the selection of health program employees and include the option of maintaining or releasing staff who were Federal employees; but they also place on the tribe the burden of recruiting and retaining health professionals in locales that often are isolated, both physically and professionally.

Option 11: Clarify the intent and purpose of the Self-Determination Act.

It is the opinion of PHS that an IHS self-determination contract project is legally an extension of IHS itself. IHS is responsible for administering these contracts on behalf of its parent agency, HRSA, according to applicable Federal contracting and procurement policies as modified by the Self-Determination Act. Tribal contractors must be monitored to ensure that they adhere to the terms of their contracts. This interpretation allows little flexibility to the contractor to modify the scope of services it has agreed to deliver or to redefine its service population.

The purpose of the self-determination program as tribes see it is not contracting per se, which has been an option for many years under "Buy Indian" contracts, but self-determination. **Tribes contend, with reason, that self-determination contracts are not supposed to be administered exactly as other Federal contracts.**

A variety of conflicts has developed over the 10 years of IHS implementation of the Indian Self-Determination Act. Rather than attempting to resolve each specific complaint, it would be more reasonable to work to clarify and reaffirm the intent of the law. The technical aspects of the administrative and financial relationship between IHS and its tribal contractors are the subject of a study by the General Accounting Office (GAO) that will be available sometime in 1986. The study involves extensive field data collection, including interviews of tribal and IHS headquarters and area office officials. The GAO study will generate specific recommendations for improving the self-determination contracting process. An evaluation of BIA's implementation of the Self-Determination Act was completed in the summer of 1984 and identified problems similar to those uncovered in OTA's analysis of IHS's implementation of the law.

Option 12: Develop a cost-accounting method that addresses the question of comparable funding when tribes take over services previously administered by IHS.

The adequacy of funding for self-determination contracts is perhaps the issue most frequently debated between the tribes and IHS. Aside from the problem of the adequacy of IHS's overall budget, there are disputes over the appropriate level of funding that should be provided to tribal contractors. The law states that tribes should receive resources equivalent to what IHS spends on a particular package of services, but there is disagreement over what that amount should be, often focusing on the issue of compensation for indirect costs. What usually is meant by indirect costs is the administrative and support costs that are provided to IHS in its function as part of the Federal bureaucracy but all of which are not reflected in IHS's clinical services budget. These costs, which nevertheless become part of the tribal contractor's responsibilities, include employee fringe benefits packages; malpractice and other insurance coverage; costs of leasing facilities; technical staff for accounting, procurement, and data management; and other functions.

There appears to be disagreement about how indirect costs are determined, and no research has been done in IHS to determine a reasonable range of indirect costs. Early tribal contractors were awarded indirect costs in addition to the service delivery contract, but this additional funding is no longer available. Tribes therefore believe that they are being asked to absorb these costs, which cut into their direct care awards.

Option 13: Revise the retrocession provision so that a year's notice, instead of the present 120 days, must be given before a tribe can return the management program to IHS.

Another factor is the belief of tribes that as tribal contract activity increases, IHS area office staff should be reduced so that more funds can be devoted to direct care and tribal programs. IHS argues that monitoring of tribal contractors requires area office staff, and that the provision allowing tribes to retrocede a contract with only 120 days' notice also necessitates maintenance of a stable area office staff. Extending the notification period for retrocession would ease this situation somewhat.

The issues and their related options are summarized in table 2.

Table 2.—Major Issues and Related Options

Eligibility and entitlement	Resource allocation and scope of services	Availability and adequacy of resources	Self-determination
Current situation:			
Persons of Indian descent, no blood quantum requirement. For services purchased by IHS from non-IHS providers, additional requirement that the individual must live on or near a federally recognized Indian reservation.	IHS does not provide the same health services in each of its service areas, and service area budgets are determined on a "historical" or "program continuity" basis. "Equity fund" of from $5 to $9 million per year (less than 2 percent of IHS's total clinical services budget) allocated on a needs-based formula to most-deficient service units; equity awards become part of future base budget.	Minimal negotiations by IHS contract care programs with non-IHS providers on rates of payment.	Federal Government emphasizes its fiscal responsibilities for funds administered under 638 contracts. Indian tribes emphasize self-determination objectives and exceptions to Federal contracting rules. Major issue involves level of funding for tribes to provide the same level of services previously provided under IHS management, and to cover indirect costs such as liability insurance.
IHS proposed change:			
Eligible persons would have to be either members of federally recognized tribes and have at least one-quarter Indian blood, or other Indians of at least one-half Indian blood. In addition, eligible Indians must live on or near a federally recognized Indian reservation.	Equity fund approach would be applied to any future increases in appropriations.	Will initiate negotiations with IHS's contractors to accept payment at no more than the Medicare-allowable rate.	New tribal contractors would be provided indirect costs up to 14 percent; source of funds not yet determined.
OTA options:			
#1: IHS or Congress could develop a priority system for access to IHS services. #2: IHS or Congress could use blood quantum criteria to supplement rather than restrict eligibility criteria based on tribal membership. #3: If eligibility criteria are made more restrictive, Congress could make IHS services less a residual source of care and more an entitlement program.	#4: Continue with the modest, incremental approach to resource redistribution that IHS has implemented. #5: Accelerate the rate of reallocating funds among IHS service areas. #6: Work toward a common minimum services package for all IHS service areas.	#7: Negotiate payment rates with contract care providers instead of paying 100 percent of billed charges, and impose a rate structure on IHS contractors, such as use of Medicare DRG (diagnosis-related groups) rates. #8: Authorize IHS service units to carry over a percent of contract funds from one fiscal year to the next. #9: Provide greater IHS headquarters and area office support to service unit contract care programs in dealing with alternative resources, both public (especially State Medicaid programs) and private. #10: Explore the possibilities of developing long-term relationships with community facilities and of providing more services to non-Indians.	#11: Clarify the intent and purpose of the Self-Determination Act. #12: Develop a cost-accounting method that addresses the question of comparable funding when tribes take over services previously administered by IHS. #13: Revise the retrocession provision so that a year's notice, instead of the present 120 days, must be given before a tribe can return program management to IHS.

SOURCE: Office of Technology Assessment.

OTHER ISSUES

Several other issues that have or may have significant effects on the Federal-Indian relationship and the provision of health services to Indians deserve explicit recognition in this summary. These issues are: 1) Indian demographics and urban Indian health programs, 2) congressional control of Federal Indian health care policies, and 3) management issues concerning IHS.

Indian Demographics and Urban Indian Health Programs

One of the more difficult issues in providing health care to Indians is the basic question of who should be eligible for services. Yet, IHS must develop uniform standards for eligibility, which at times has led Congress to legislate exceptions to these regulations.

The issue of who is an "Indian" for the purpose of Federal health care benefits will be an increasingly difficult one as time passes. Even land-based, reservation Indians will not be immune to these changes. Marriage to non-Indians and migration away from the reservation to seek better employment opportunities will require tribes to make increasingly difficult decisions on who is a member of their tribe. Even for Indians who marry other Indians, their prospects for marrying an Indian from the same tribe are diminishing, and it is not improbable that a large number of non-tribal member Indians will result who will have more Indian blood than the average tribal member. Already, some tribes have had to reduce their tribal-specific blood quantum requirements for membership.

In the 1980 census, almost two-thirds of the 1.4 million persons identifying themselves as Indians lived off reservations, tribal trust lands, or other Indian lands. Of the 1.4 million Indians, 54 percent lived in metropolitan areas, and 59 percent were included in IHS's estimated service population. About 10 percent of Indians were living on or near reservations that were in or contiguous to metropolitan areas, and these Indians were served by IHS or tribal facilities.

However, IHS-supported programs for urban Indians have always been viewed as a separate activity from IHS's reservation-oriented direct services system. In 1972, IHS began to fund urban programs through its community development branch under the general authority of the Snyder Act. Appropriations were subsequently derived from the Indian Health Care Improvement Act of 1976, which authorized urban Indian organizations to contract with IHS to operate health centers and to increase accessibility of Indians to public assistance programs. There were 37 programs in 20 States in 1984.

A major distinction from IHS's direct services program is the urban programs' emphasis on increasing access to existing services funded by other public and private sources, instead of IHS's providing and paying for those services directly. Thus, IHS funds have provided an average of 51 percent of total urban Indian health program funds. Most of the programs offer a variety of social services and are "human service organizations." Thirtytwo percent of the reported urban program encounters in fiscal year 1984 were medical; 10 percent were dental; 27 percent were health-related (health education, nutrition, mental health, optometry, and substance abuse programs); and 31 percent represented other community service contacts.

Urban Indian health programs serve both Indians and non-Indians. IHS regulations do not prohibit its urban programs from serving non-Indians, and funding from other Federal sources often requires urban Indian programs to serve certain populations that include non-Indians. Hence, the only requirement that IHS has required is that the number of Indians served by each program be proportional to the amount of money provided by IHS.

Support by IHS for urban Indian programs has raised conflicts in the Indian community, and the Administration has consistently tried to end funding of these programs, claiming that alternative resources are adequate for urban Indians. The National Tribal Chairmen's Association, for example, supported efforts to assist Indians in Indian communities and urban areas but felt that nontribal organizations, such as the nonprofit corporations that operate urban Indian programs, should coordinate the services they provide for Indians with tribal governments and elected Indian officials. Leaders of several urban Indian organizations, on the other hand, point out that in some urban centers, there are as many as 40 tribal governments nearby, and representation of tribes on urban Indian program governing boards might include over 80 different tribes. Urban Indian organizations also feel that the Federal Government must provide health care and social services to Indians regardless of their chosen residence. **As for the claim that alternative resources are adequate, the Administration has never documented that claim.** Moreover, IHS funds serve as core funding that enables the urban programs to seek out and qualify for other sources of care. **Considering the modest funds that have been appropriated for these programs, past government policies (e.g., allotment and termination) that broke up tribes and encouraged Indians to leave the reservation, and the use of IHS funds to help urban Indians qualify and gain access to other resources, these activities appear to be a logical and appropriate response that is not at cross purposes with IHS's reservation-oriented direct care system.**

Congressional Control of Federal Indian Health Care Policies

The Snyder Act of 1921 remains the basic authorizing legislation for Indian social services programs, including health services. Other statutes that have been relevant to the provision of health services to Indians are: 1) the Johnson O'Malley Act of 1934, which authorized contracts between the Federal Government and State and local governments to provide health care and other social services to Indians; 2) the Transfer Act of 1954, which transferred health care functions from the Department of the Interior's Bureau of Indian Affairs to the Public Health Service in the precursor to the current Department of Health and Human Services; 3) The Indian Health Facilities Act of 1957, which authorized IHS to contribute to the construction costs of community hospitals if that was a more effective alternative to direct construction of facilities for Indians; 4) the Indian Sanitation Facilities and Services Act of 1959, authorizing IHS to provide sanitation facilities to Indians; 5) the Indian Self-Determination and Education Assistance Act of 1975, which authorized BIA and IHS to turn over responsibilities for Indian programs to the tribes; and 6) the Indian Health Care Improvement Act of 1976 (reauthorized in 1980, passed again by Congress in 1984 with additional provisions but vetoed by the President, and extended through fiscal year 1986 by continuing resolution of Congress [H.R. Res. 465]).

These statutes provide the basis for Federal Indian health care, but the Snyder Act and the Indian Health Care Improvement Act have been the principal statutes authorizing health services to Indians. Without reauthorization of the Indian Health Care Improvement Act, congressional influence over Indian health care policies may diminish with only the general language of the Snyder Act as the statutory basis for defining what health care the Federal Government will provide to Indians. This impact can be expected to extend to the judicial system's role in resolving Indian health care issues, because much of the courts' role is in interpreting the congressional intent behind a statute. If explicit congressional directives on the kinds of programs the Federal Government should be conducting are lacking, the Administration will have much more discretion in determining what health benefits it will provide.

Congressional direction on Federal Indian health care will be especially crucial in the Federal budget climate of the next 5 to 10 years. Unlike the previous three decades, where attention was primarily directed at adding new initiatives, hard choices will most likely have to be made among Indian health care programs, either in terms of discontinuing some activities outright, or in determining which activities should be cut back more severely than others.

Indian Health Service Management Issues

It has not been the purpose of this OTA assessment to evaluate IHS management practices and information systems. In fact, when management issues arose during the course of this assessment, OTA suggested that GAO was the proper agency to be involved, a suggestion that in part led to the concurrent study by GAO on management practices in the self-determination contract program. Nevertheless, after a year's experience in working with a variety of IHS offices and staff (primarily at or through IHS headquarters) to obtain data, some general observations about IHS's data systems can be made.

First, however, it would be helpful to identify at least two other management issues facing IHS. These issues involve: 1) where in the Department of Health and Human Services IHS should be located, and 2) growing personnel problems in IHS.

The location of IHS in DHHS was an issue that was addressed by Congress in the vetoed 1984 amendments to the Indian Health Care Improvement Act. In fact, the provision in the amendments elevating IHS to a higher level within PHS was one of the reasons the President vetoed the bill. Within the Department of the Interior, BIA is a separate agency solely concerned with Indian affairs. IHS, whose responsibilities were transferred to PHS from BIA in the mid-1950s, is currently part of HRSA, one of five Federal agencies that comprise PHS (the other four are the National Institutes of Health; the Centers for Disease Control; the Food and Drug Administration; and the Alcohol, Drug Abuse, and Mental Health Administration). **IHS represents the bulk of HRSA's direct health care activities and approximately 35 percent of the total HRSA budget, and is the largest Federal health care system after those of the Department of Defense and the Veterans Administration.** Thus, in terms of access to higher levels within PHS and DHHS and accountability to organizations at lower levels (i.e., HRSA), IHS's position is not comparable to the position enjoyed by BIA in the Department of the Interior. **The attempted elevation of IHS through the vetoed amendments was based on the premise that IHS would have greater access to higher levels within DHHS, and that there would also be less duplication and clearer requirements for the paperwork that accompanies program administration and receipt of IHS funds.**

Indians are given preference in employment with BIA and IHS. This preference given to Indians is in contrast to the relative preference given to veterans for Federal employment by the "point" system. Indian preference applies to all BIA and IHS positions, whether for initial hiring, reinstatement, transfer, reassignment, promotion, or any other personnel action intended to fill a vacancy (42 CFR 36.42). This preference is also applied to tribally administered programs, although in a less strict manner, with the regulations stating that tribes may hire non-Indians "after giving full consideration to Indians" (42 CFR 36.221).

The positive and negative effects of Indian preference have never been formally assessed, but one consequence is that non-Indian BIA and IHS employees have limited opportunities for advancement, and this limitation is increasing. Necessary recruitment of highly qualified non-Indians will become increasingly difficult, and few will contemplate more than temporary employment because their career opportunities will be severely limited.

For the Indian BIA or IHS employee, a growing issue may well be that of conflicting roles—as a representative of the Federal Government in its relationship with Indians and as an advocate for increasing Federal benefits for Indians. For example, IHS is presently viewed by its parent organization (PHS in DHHS) as an advocate for its clients.

A different personnel issue concerns the impending end of a very important source of physicians and other health professionals from the NHSC scholarship program, which has given IHS first priority when the time comes for these professionals to repay their obligation through service in health manpower shortage areas. As mentioned previously, **after 1990, IHS cannot expect new recruits from this source.** Furthermore, the PHS Commissioned Corps will have a difficult time in staffing IHS, as that program also is not as attractive to professionals now that there is no military draft (service in the Corps was equivalent to active duty in the military). The Indian Health Care Improvement Act established scholarship programs for Indian health professionals, but that activity, although important in developing an Indian health professional cadre, cannot be expected to substantially replace NHSC and Commissioned Corps anytime in the near future. Thus, a serious problem for maintaining IHS direct services is staff shortages, and innovative approaches must be explored to address this problem.

Turning finally to IHS's data systems, **OTA found an array of uncoordinated service-specific data systems that have developed over the years in response to particular information needs. The delegation of most management responsibilities to IHS area offices has contributed to a lack of incentives to establish complete and consistent information for all 12 IHS areas.** The difficulties OTA had with evaluating the high-cost contract care cases illustrate this problem.

Another major impediment to the generation of complete and consistent IHS data is the exemption of self-determination contract programs and urban Indian health projects from IHS data reporting requirements. Tribal participation in existing IHS data systems is voluntary, and most tribal contractors do not operate within IHS systems. The lack of clinical, utilization, and management data due to nonparticipation in IHS data systems is a serious problem and will become worse as more services are transferred to tribal management, unless an IHS policy of November 1985 requiring participation in essential data systems is enforced. Lack of data was a particularly difficult obstacle in OTA's attempts to compare funding, utilization, and health status among Indians in the 12 IHS areas (particularly those heavily dependent on self-determination contracts).

It is likely that much more information could be derived from existing IHS data systems than currently is being sought and provided. A great amount of data is being collected by IHS, but there is no overall framework or purpose guiding that data collection and its use. An assessment and coordination of existing data systems could be undertaken as an interim solution while planning for implementation of a more rational and cost-effective system takes place. Such planning now is underway, and IHS budget proposals for fiscal year 1987 include earmarked funds for IHS data system implementation. In IHS, however, where resources for services delivery are seen as chronically inadequate, any funds spent on data systems are likely to be viewed as better spent on direct services. This attitude certainly would be more pronounced among tribal contractors, who already view their budgets as inadequate for direct services.

Agreement by all parties concerned on the validity and comprehensiveness of data on the Indian population, their health status, and on the availability and use of services among the 12 IHS service areas, is a necessary precondition to the kinds of negotiations that will be taking place between Indian tribes, Congress, and the Administration in the coming years.

Assessments in Progress as of April 1986

Technologies To Maintain Biological Diversity
Integrated Renewable Resource Management for U.S. Insular Areas
Low Resource Agriculture in Developing Countries
Evaluation of Agent Orange Protocol
Technologies for Detecting Heritable Mutations
Technologies for Child Health
Life-Sustaining Technologies and the Elderly
Disorders Causing Dementia
New Developments in Biotechnology
Infertility: Prevention and Treatment
Technology and the American Economic Transition
High-Technology Ceramics and Polymer Composites
Technologies for Prehistoric and Historic Preservation
Magnetic Fusion Research and Development
Competitiveness of Domestic Copper
International Competition in the Service Industries
Reduction of Industrial Hazardous Wastes
Technology Transfer to China
Alternatives for Improving NATO's Defense Response
Strategic Defense Initiative: Survivability and Software
Federal Government Information Technology: Key Trends and Policy Issues
New Communications Technology: Implications for Privacy and Security
Wastes in the Marine Environment: Their Management and Disposal
Technologies To Control Illegal Drug Traffic
Technologies for Exploring and Developing U.S. Economic Zones
Hazardous Materials Transportation: Technology Issues
Science Policy Special Projects

(NOTE: For brief descriptions of these studies in progress, see OTA booklet on "Assessment Activities"—available from OTA's Publishing Office, 224-8996.)

NOTE: Copies of the full report "Indian Health Care" can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, GPO stock No. 052-003-01033-0.

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